

**ENVIRONMENTAL PROTECTION AGENCY
TECHNICAL ENFORCEMENT SUPPORT
AT
HAZARDOUS WASTE SITES**

**TES IV
CONTRACT NO. 68-01-7351
WORK ASSIGNMENT NO. C05011**

LETTER REPORT

**REVERE COPPER AND BRASS SITE
DETROIT, MICHIGAN**

US EPA RECORDS CENTER REGION 5



434755

EPA REGION V

**JACOBS ENGINEERING GROUP, INC.
PROJECT NO. 05-B872-00**

AUGUST 1988

1.0 INTRODUCTION

The focus of this report is the identification of those parties responsible under CERCLA/SARA Section 9607 for the release of PCBs at the Revere Copper and Brass site. The Revere Copper and Brass Company (hereinafter Revere Copper) site is located at 5851 West Jefferson Avenue, Detroit, Michigan. For an in-depth report on site background and site investigation see the attached WESTON-SPER Technical Assistance Team report (Document A001). A history of the site investigation can also be found in the OSC outline for Revere Copper (Document A002).

The Technical Assistance Team (hereinafter TAT) reported that Revere Copper melted scrap and virgin copper into "cakes" that were then used as the material for copper bearing consumer products. No smelting took place on site, and it appears that the only hazardous waste on site are PCBs. The PCBs are not a by-product of the Revere Copper melting process, but come from transformers found on site. These transformers are believed to have been placed on site for the purpose of gutting said transformer to reclaim the copper parts they contain (Document A001). The gutting of these transformers is believed to have caused the release of PCBs at the site (personal communication, Mr. Bob Bowles, U.S. EPA, Region V). The transformers were obtained at least in part from Carter Industrial Inc. Apparently, the Carter Industrial place of business is also a hazardous waste site due to the presence of PCBs on the property (personal communication, Mr. Bob Bowles, U.S. EPA, Region V).

The files as received by Jacobs in this project are brief at best. Title documents have been ordered and as of the date of this report have not been delivered. The corporate information for Carter Industrial has been ordered from the Michigan Department of Commerce and should be delivered to Ms. Sue Lorenz of Jacobs Engineering by the week of September 12th. The following Section 2.0 discusses those PRPs as identified in the TAT report, and other PRPs to be investigated.

2.0 POTENTIALLY RESPONSIBLE PARTIES

The files on Revere Copper offer little substantive evidence that could be utilized in identifying a party as a PRP. Through the TAT report and other notes, it appears that there are a minimum of three PRPs associated with the site. In order of importance they are: 1) Revere Copper, 2) City of Detroit, Michigan, and its Community Economic Development Department (hereinafter CEDD), and 3) Carter Industrial. For access purposes on site the CEDD should be contacted. The following is a summary of the useable file and other public information for each PRP.

2.1 Revere Copper

The address for Revere Copper's parent is Revereware, P.O. Box 250, Clinton, IL, 61727; Phone No. 1-217-935-3111. According to the Records Information Unit at the Michigan Dept. of Commerce, Phone No. 1-517-334-6304, Revere Copper was listed as a foreign corporation until 1981 when it filed a Certificate of Withdrawal. The last Annual Report filed by Revere Copper with the Michigan Dept. of Commerce was in 1980. This report and the articles of incorporation are included in the appendix (Document A003).

According to the TAT and OSC report Revere Copper never generated any PCBs on site. The reason for PCB contamination was due to gutting of the transformers for recovery of internal copper parts. Based on the file information Revere Copper

owned/occupied the site from the late 1920's until some time in 1985. In 1985 Revere Copper apparently turned the site over to the City of Detroit Community Economic Development Dept. This owner/operator status would make them a PRP under CERCLA/SARA Section 9607. A definite PRP classification cannot be made until the title documents are reviewed.

2.2 City of Detroit Community Economic Development Dept.

The address for the City of Detroit Community Economic Development Dept. (hereinafter CEDD) is 150 Michigan Avenue, Detroit, MI, 48226; Phone No. 1-313-876-4519. The TAT report designates the CEDD as current owner of the Revere Copper Site. It appears that the CEDD was granted the property by Revere Copper. This ownership determination cannot be made without review of the title documents, although EPA has already notified CEDD of their PRP status by letter from Mary Gade, U.S. EPA Region V to Don Pailen of the City of Detroit (Document A004).

If CEDD/City of Detroit does in fact own the site they would be a PRP due to their current landowner status and liable under CERCLA/SARA Section 9607. The CEDD appears to have carried on no other activities on site that would further designate them as a PRP. This ownership determination must await review of the title documents. Until such review is made both CEDD and Revere Copper should be notified for access to the site, although access authority is likely vested in CEDD.

2.3 Carter Industrial

Although referenced in the file both as Carter Industries and Carter Industrial, it appears the correct name is Carter Industrial. Several phone conversations with the Michigan Department of Commerce revealed that Carter Industrial Inc. was dissolved by statute in 1988 for failure to comply with annual filing requirements. The registered agent for Carter Industrial is Thomas D. Carter, 240 Orleans, Detroit, MI 48207, 1-313-891-5719. This phone number was called, but Thomas Carter is apparently no longer at this number. The Articles of Incorporation and the most recent corporate information filed by Carter Industrial have been ordered from the Michigan Department of Commerce to be sent to Ms. Sue Lorenz (Order No. 8845810). These documents should assist in determining the PRP liability category in which to place Carter under CERCLA/SARA Section 9607 (it appears they would be a generator or transporter). However, their apparent affiliation with the transformers scrapped for Revere Copper all but assures classifying Carter as a PRP. The title documents may reveal further evidence of liability.

2.4 Other PRPs

Further investigation of the site should result in naming other PRPs in addition to those in Sections 2.1-2.3. Investigation should be made into the manufacturer of the various transformers found on site, any other transporters to the site besides Carter, and to determine if anyone has removed or tampered with transformers from the site after Revere Copper ceased operations.

3.0 CONCLUSIONS/RECOMMENDATIONS

Both CEDD and Revere Copper should be notified for site access until the title documents are reviewed. It appears that Revere Copper and Carter Industrial are likely PRPs, although the indication is that Revere Copper may be the PRP most financially able to pay for clean-up. As for the CEDD, if they in fact are the current owner of the site, then the City of Detroit/CEDD is a PRP due to their current ownership status. However, as with Revere Copper and Carter, the validity of PRP designation for any entity named herein is questionable until the title documents are reviewed. Those entities designated as "other PRPs" in Section 2.4 should be investigated for CERCLA/SARA Section 9607 liability as generators and/or transporters.

Appendix A

REVERE COPPER AND BRASS

SITE ASSESSMENT

DETROIT, MICHIGAN

Prepared For:

U.S. Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, Illinois

CONTRACT NO. 68-01-7367

TAT-05-N-00046

TDD NO. 5-8709-08

Prepared By:

WESTON-SPER
Technical Assistance Team
Region V

January, 1988

A001

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1.0 SITE DESCRIPTION

Revere Copper and Brass (RCB), an abandoned copper bearing products manufacturer, is located at 5851 W. Jefferson Avenue, approximately 1 1/4 miles southwest of the Ambassador Bridge, in Wayne County, Detroit, Michigan (Figure 1). The RCB property is bordered to the north by W. Jefferson Avenue, to the east by the Misterski Public Lighting facility, to the south by the Detroit River, and to the west by Historic Fort Wayne (Figure 2). The terrain is generally flat with a gentle slope towards the Detroit River. The site is owned by the City of Detroit's Community Economic Development Department (CEDD) and is located in an urban residential and industrial area.

The site was suspected of having elevated levels of polychlorinated biphenyls (PCB) because of RCB's handling of scrap copper. The main building is located on the western edge of the property. In the midsection of the building, the roof has collapsed leaving a gap of approximately forty feet. The area adjacent to and east of the building is a zone of scattered demolition debris where extensions to the RCB building once stood. There is a large diked storage tank on the east edge of the demolition debris zone. Four empty offices and support buildings are located on the site. Also, throughout the site, there are considerable amounts of scattered solid waste such as automobiles, mattresses, and refuse.

2.0 SITE BACKGROUND AND HISTORY

RCB purchased the property and the associated buildings in the 1920's. The major operation at this facility was the melting of scrap and virgin copper into "cakes" which would then be fabricated into copper bearing products. Mike Durr of RCB reported that smelting activities were never performed at the site. The facility was closed and all equipment removed in 1985. The property was subsequently relinquished to the City of Detroit's CEDD. Representatives from CEDD stated that a number of firms have shown interest in purchasing the site. In September 1987, because of public concerns about RCB being a hazardous waste site, potentially contaminated with PCBs and asbestos, the U.S. Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) to perform a site assessment.

3.0 SITE INSPECTION

On September 17, 1987 TAT members Tim Ott, Ann Patchak, and Mike Turnbull conducted a site assessment at the RCB facility. Following a perimeter inspection, the TAT members entered the unrestricted RCB building to conduct air monitoring and document any potential environmental or human health threats. No readings of organic vapors, explosive atmosphere, or radiation above back-

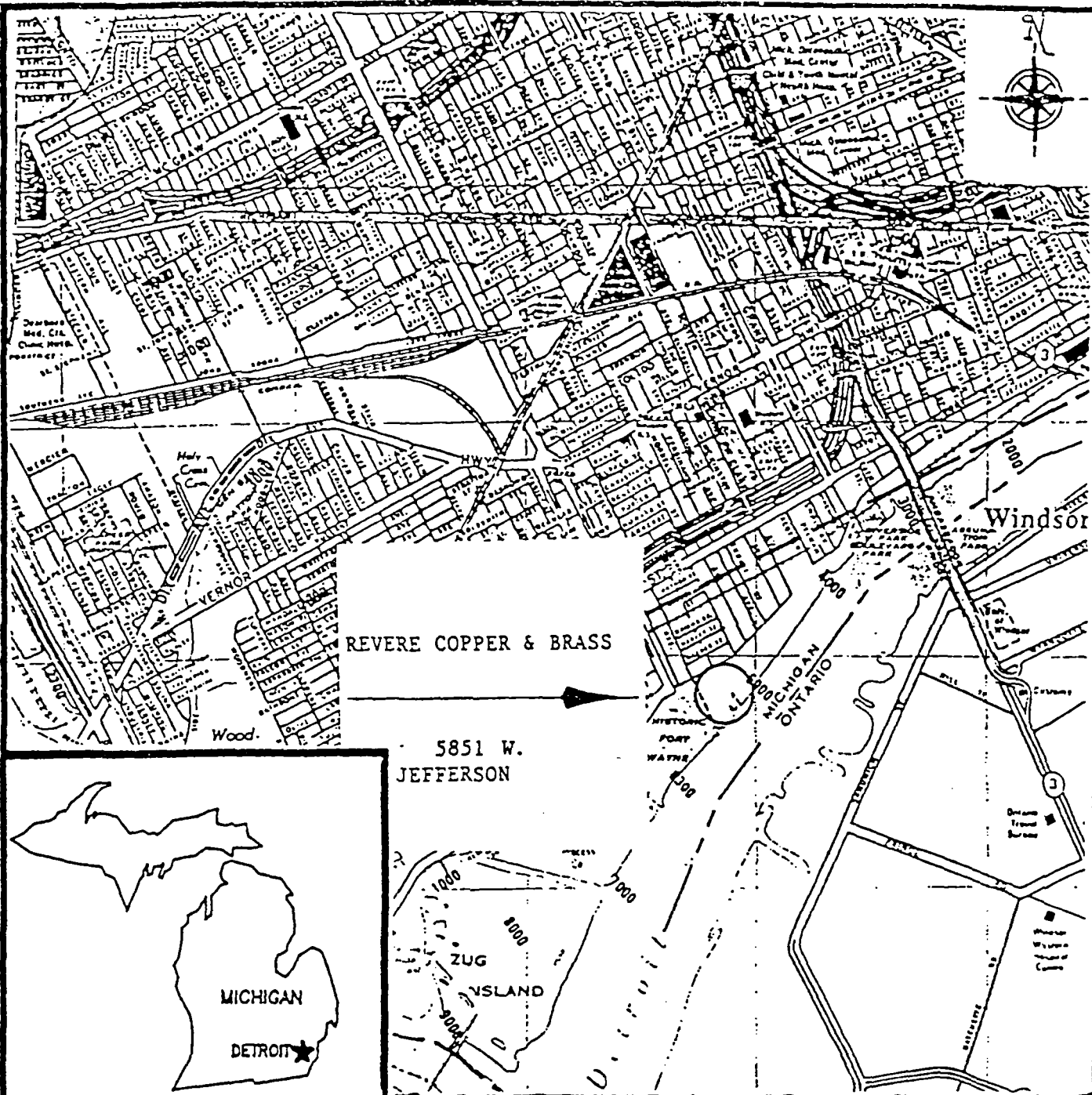


FIGURE 1
SITE LOCATION MAP
REVERE COPPER AND BRASS
DETROIT, MICHIGAN

NOT TO SCALE

WESTON

DRAWN BY M. TURNBULL	DATE 11-17-87	PCS # 1339
APPROVED J. BINKLEY	DATE 1-18-88	TDD # 5-8709-08

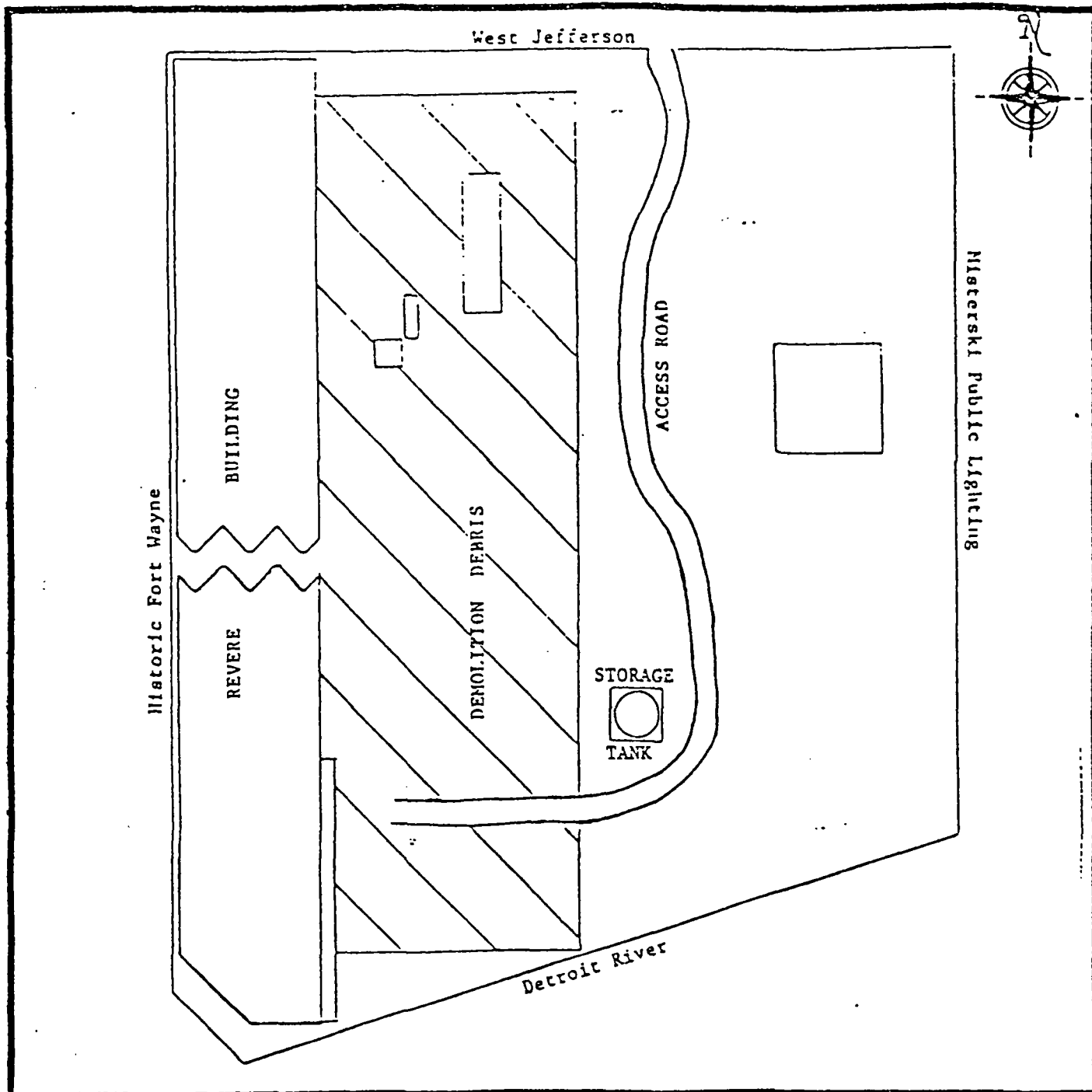


FIGURE 2
SITE MAP
REVERE COPPER AND BRASS
DETROIT, MICHIGAN

NOT TO SCALE

WESTON

DRAWN BY M. TURNBULL	DATE 11-17-87	PCS # 1339
APPROVED J. BINKLEY	DATE 1-18-88	TDD # 5-8709-08

ground levels were detected, as monitored by the photoionization detector, combustible gas indicator, and radiation meter. Inside the building, there were numerous equipment mounting pits which contained water, oil, and various solid waste materials. Several areas where suspected asbestos pipe wrapping was present were identified. Inside the building, an individual was removing metal from the building's support system with a cutting torch. In addition, the TAT documented several sport fishermen on the RCB property waterfront.

On November 5, 1987 TAT members Tim Ott and Dan Capone met U.S. EPA On-Scene Coordinator (OSC) Peter Neithercut at the site to collect samples from inside the building. Liquid samples R1 through R6 were collected from various pits and trenches, which were the lowest areas in the building, and appeared to contain most of the floor run-off of oily materials. Inside the building a block of approximately twelve capacitors (approximate volume: 2 gallons/capacitor) was discovered mounted on the wall of an equipment pit. A punctured capacitor was located on the floor above the equipment pit. A soil sample (R7) was collected from the area beneath the punctured capacitor (Figure 3). The samples were analyzed for PCBs under TAT analytical services TDD# 5-8709-L5 by Thermo Analytical, Inc.

4.0 ANALYTICAL RESULTS

The PCB analytical results are summarized in Table 1. All of the liquid samples (R1-R6) were below 6.0 parts per million (ppm). The soil sample (R7) collected directly beneath the punctured capacitor, had an extremely high concentration of Arochlor 1242 (160,000 ppm). The National PCB Spill Clean-up Policy (52FR10680) states that soils contaminated by PCBs greater than 500 ppm are required to be removed until a clean-up level of either 10 ppm or 25 ppm is obtained, dependent upon the spill location.

5.0 THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Paragraph (b) (2) of Part 300.65 of the National Contingency Plan outlines conditions which may be considered in determining the appropriateness of a removal action. Of these conditions, two exist at the RCB site, and will be elaborated on in the following subsections:

- o actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or the food chain; and,

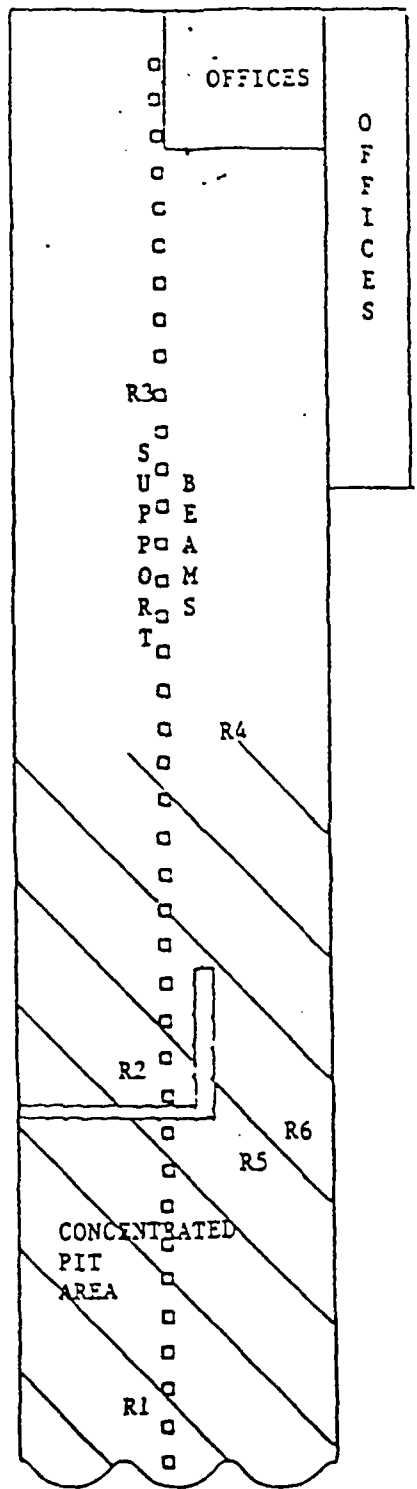
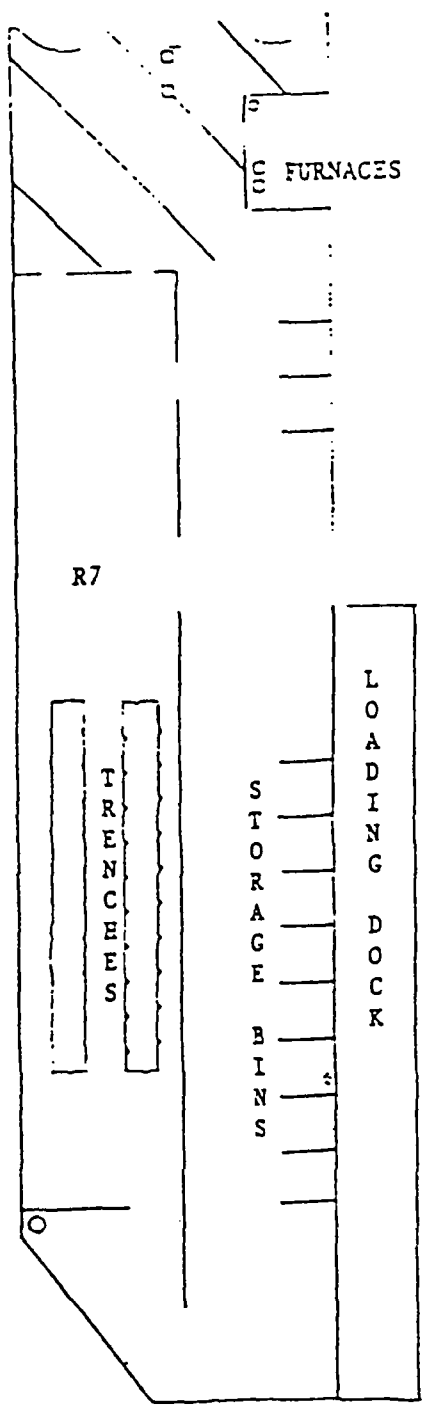


FIGURE 3
 SAMPLING LOCATION MAP
 REVERE COPPER AND BRASS
 DETROIT, MICHIGAN
 NOT TO SCALE

WESTON		
DRAWN BY M. TURNBULL	DATE 11-17-87	PCS # 1339
APPROVED J. BINKLEY	DATE 1-18-88	TDD # 5-8709-08

TABLE 1
ANALYTICAL RESULTS OF TAT SAMPLING
REVERE COPPER AND BRASS*
NOVEMBER 5, 1987

<u>Sample Location</u>	<u>Matrix</u>	<u>Contaminant</u>	<u>Concentration (ppm)</u>
R1	Aqueous		<4.0
R2		Arochlor 1242	5.2
R3			<4.0
R4			<2.0
R5			<2.0
R6		Arochlor 1260	5.8
R7	Soil	Arochlor 1242	160,000

*Samples Analyzed by Thermo Analytical, Inc.

- o high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

5.1 Actual or Potential Exposure to Hazardous Substances

Access to the RCB site is not restricted. The TAT observed extensive evidence of past scrap removal inside the building. On both occasions that the TAT visited the site, individuals were observed removing scrap metal. A common practice of salvagers is to open capacitors to recover the contained copper resulting in their direct exposure to the PCB dielectric fluid. The exposure of these individuals to the PCB contamination inside the building is highly probable.

5.2 Threat of Migration

Due to the site's proximity to the Detroit River, the potential exists for PCB contamination to migrate off-site into the river, exposing aquatic life and food chains. Sport fisherman observed during the SA could be potentially exposed to PCBs via the consumption of contaminated fish.

5.3 Specific Chemical Threats

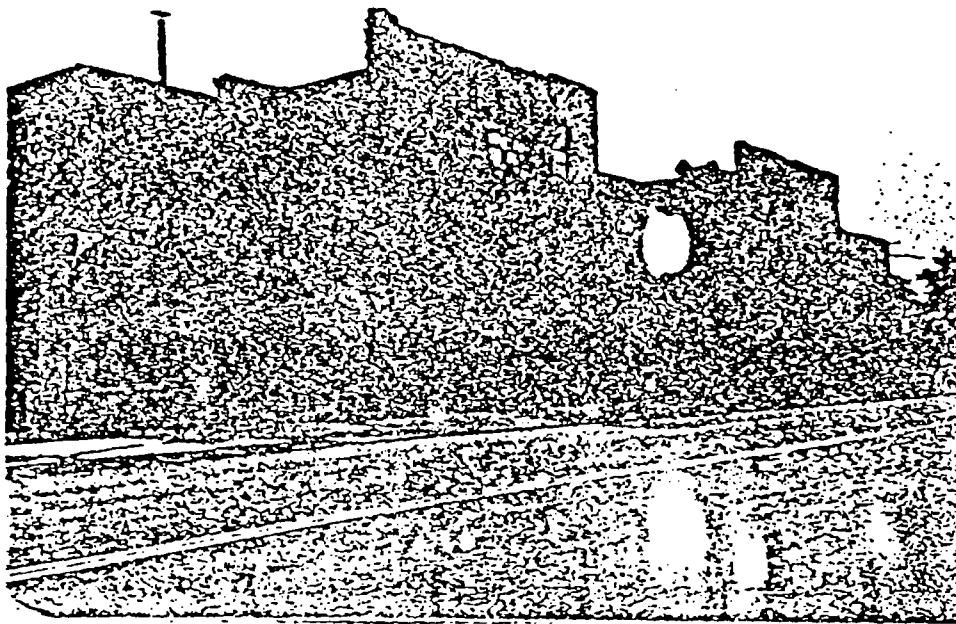
There is significant documentation of the health effects of PCB exposure, as well as the tendency of PCBs to bioaccumulate in the environment at low levels. PCBs are probable carcinogens, and toxic effects of direct contact include: chloracne; pigmentation of skin and nails; excessive eye discharge; swelling of eyelids; and, gastro-intestinal disturbances.

6.0 RECOMMENDATIONS

Because the documented PCB contamination is limited at RCB the TAT does not recommend a removal action conducted by U.S. EPA at this time. However, the current owner of the site (City of Detroit CEDD) should be notified of both the PCB contamination and potential for further releases. CEDD should be held responsible for removing all capacitors, and performing an effective cleanup of the contaminated area. The National PCB Spill Cleanup Policy should be used as the appropriate clean-up standard. The CEDD should also conduct a more extensive assessment of the building to assure that no additional capacitors are present on-site. In addition, the suspected asbestos problem should be referred to the Regional Air Pollution Control Agency to confirm the presence of asbestos and take appropriate actions. If the City of Detroit CEDD is unwilling or unable to take responsibility for a removal action, the TAT recommends that the site be referred to the Michigan Department of Natural Resources for further action under Michigan Act 307.

ATTACHMENT A

PHOTOGRAPHS



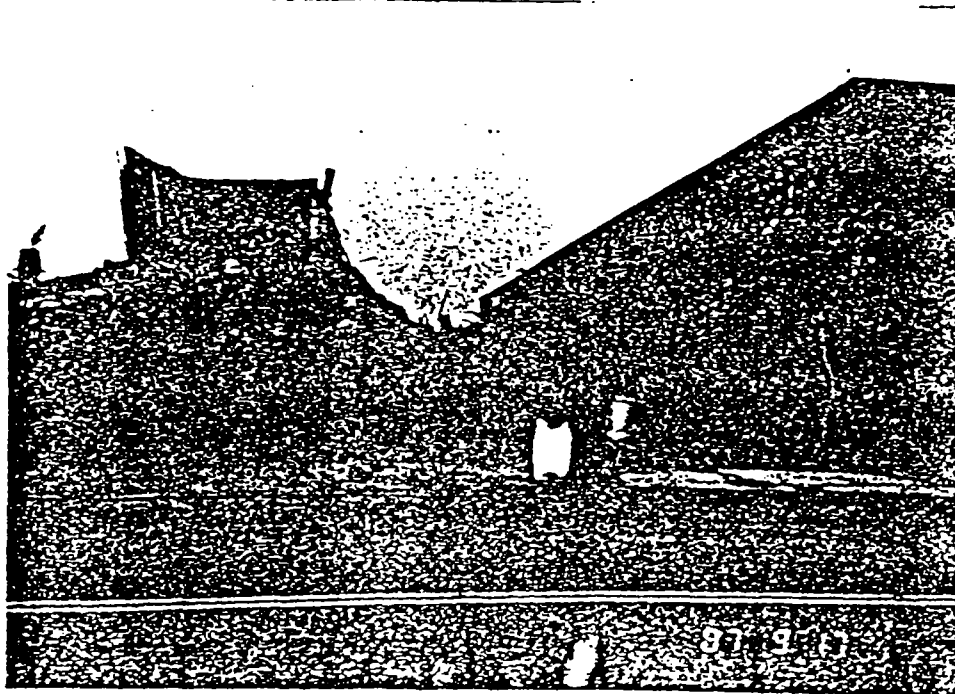
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 1 DIRECTION: SW TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: FRONT OF REVERE BUILDING ON W. JEFFERSON



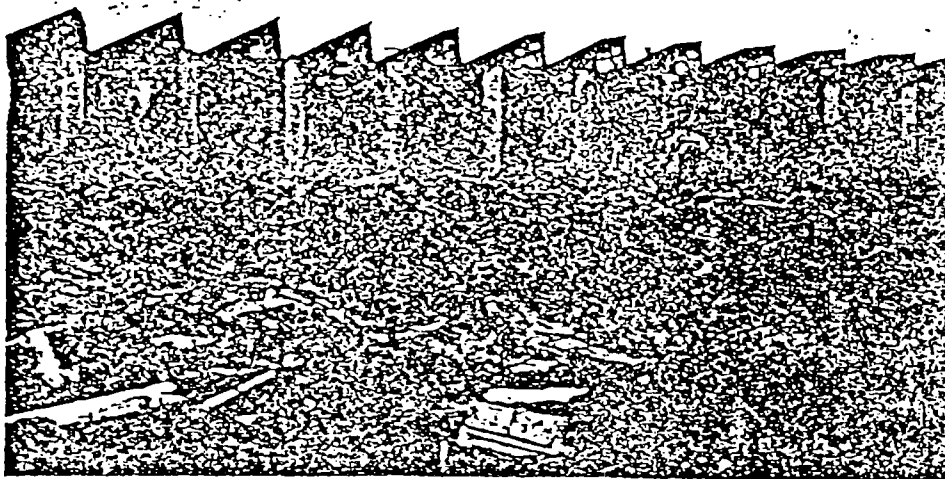
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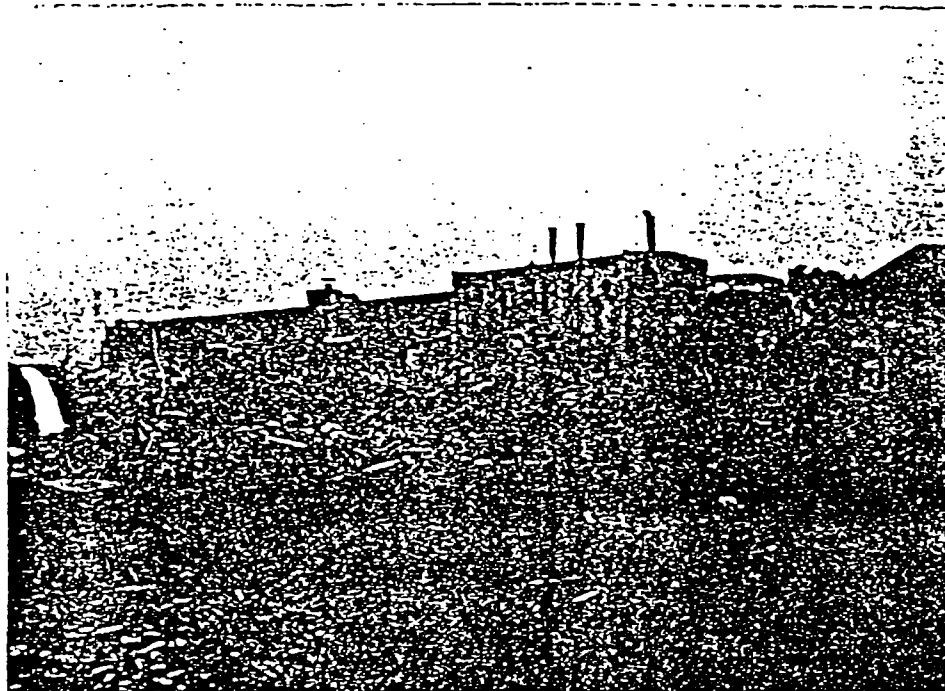
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: FRONT OF REVERE PROPERTY ON W. JEFFERSON



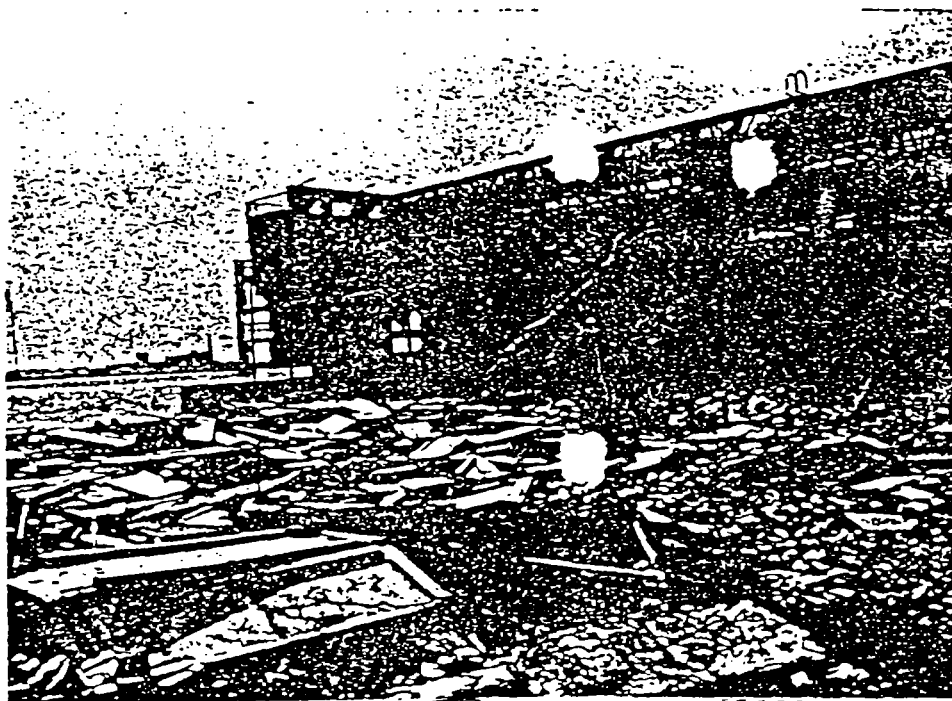
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PHOTOGRAPH NUMBER: 3 DIRECTION: W TIME: PM
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PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
SUBJECT: MID-SECTION OF REVERE BUILDING



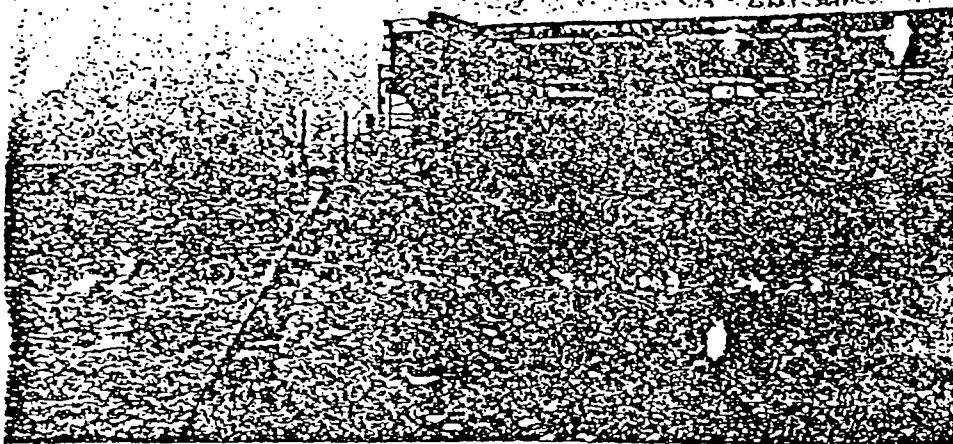
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PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
SUBJECT: REAR SECTION OF REVERE BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
PHOTOGRAPH NUMBER: 5 DIRECTION: NW TIME: PM
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
SUBJECT: REVERE BUILDING FROM WATERFRONT



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
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PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
SUBJECT: REVERE BUILDING ON WATERFRONT



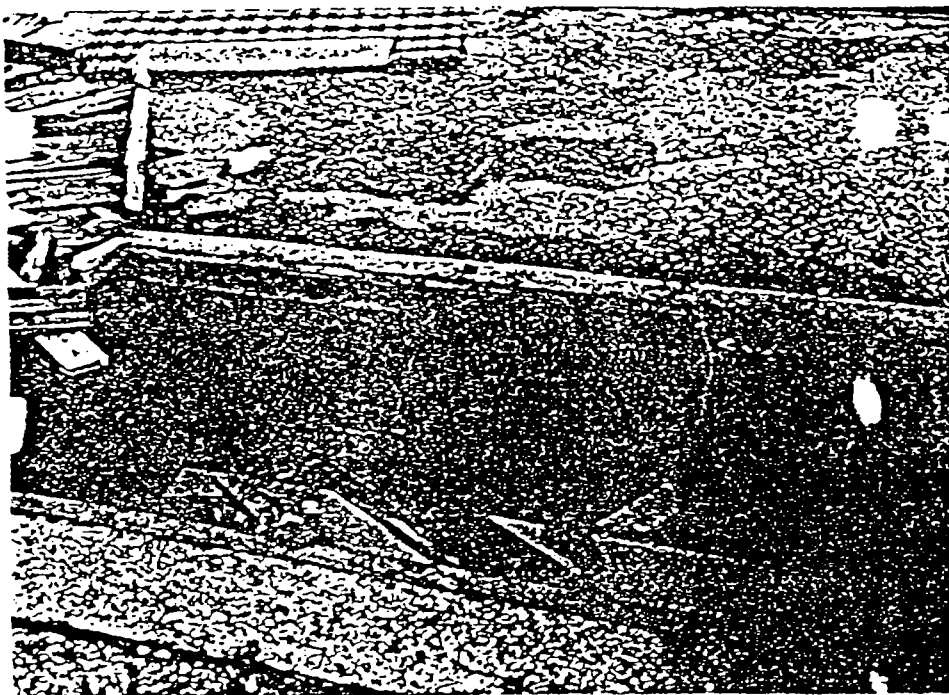
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: REVERE BUILDING ON WATERFRONT



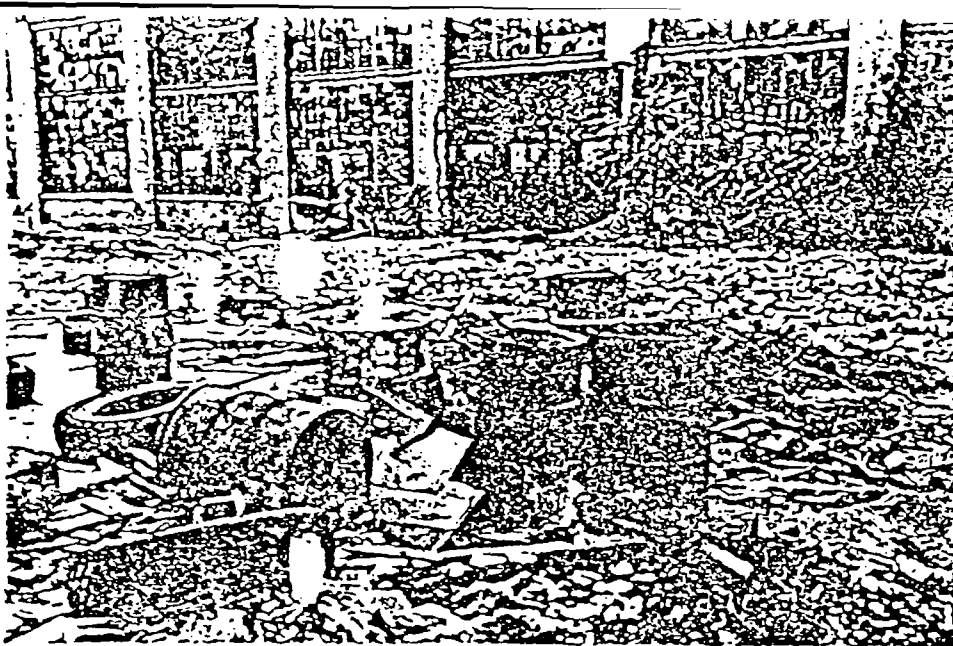
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: OUTSIDE PIT NEAR BUILDING MIDSECTION.



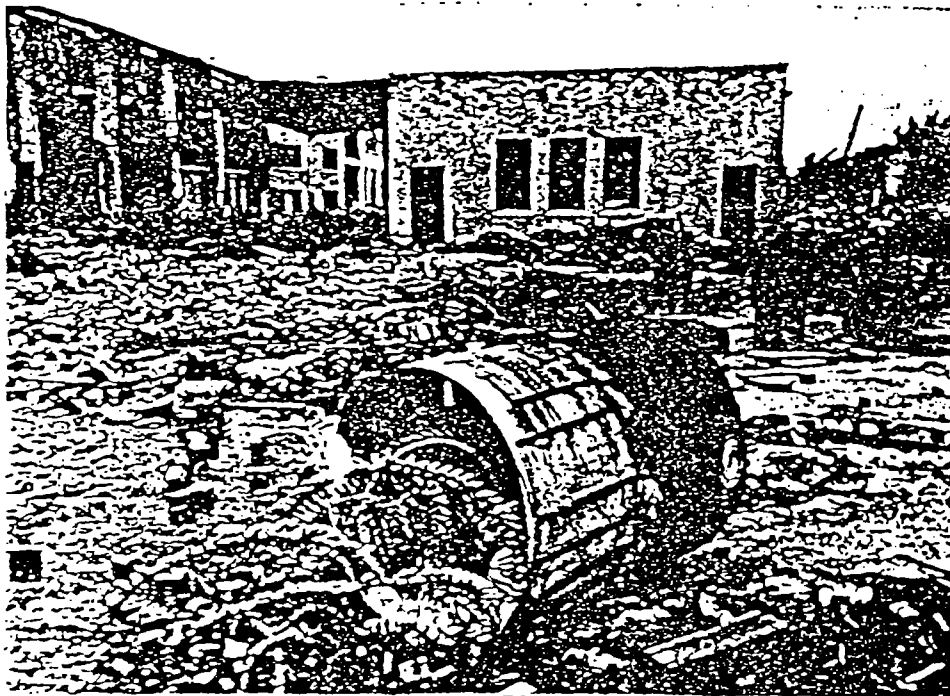
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 12171 3

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: DRUMS NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 10 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

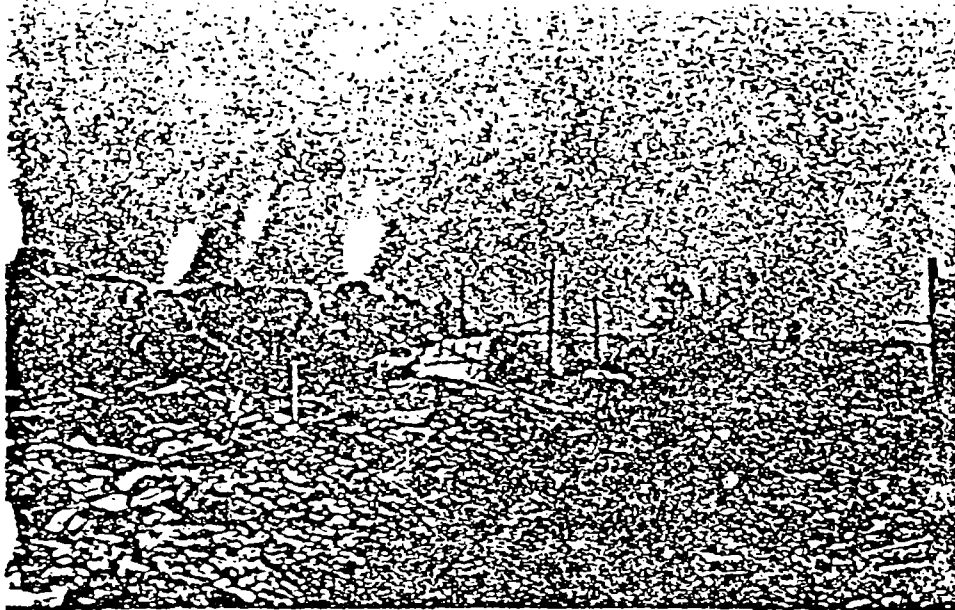
SUBJECT: HEATING/COOLING TANK NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
PHOTOGRAPH NUMBER: 11 DIRECTION: S TIME: PM
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
SUBJECT: DEMOLITION MATERIAL NEAR BUILDING'S MIDSECTION



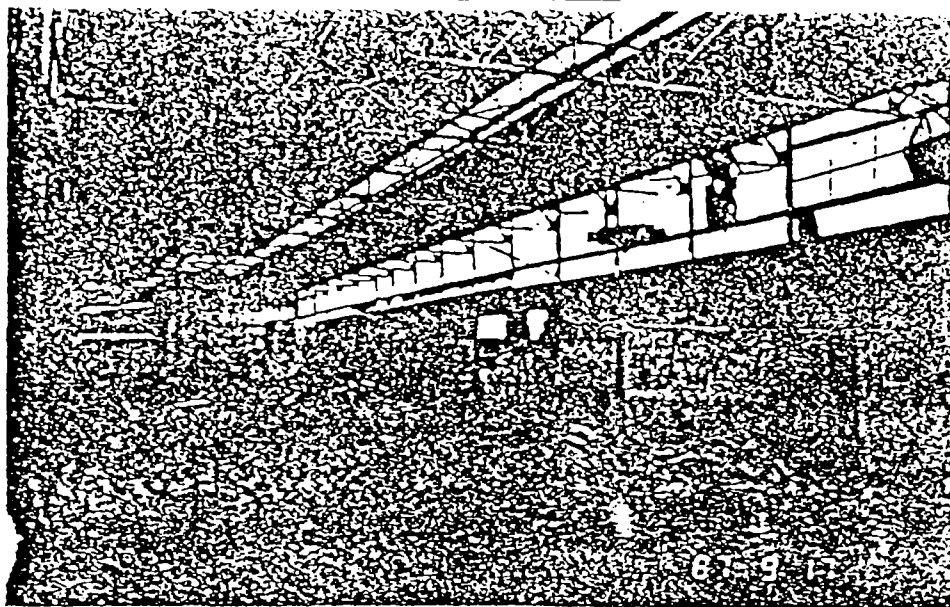
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
SUBJECT: ABANDONED MACHINERY NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
PHOTOGRAPH NUMBER: 13 DIRECTION: SE TIME: PM
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
SUBJECT: DEMOLISHED BUILDING/SPORT FISHERMEN'S CARS



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
PHOTOGRAPH NUMBER: 14 DIRECTION: N TIME: PM
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
SUBJECT: WATER AND OIL TANK NEAR MIDSECTION



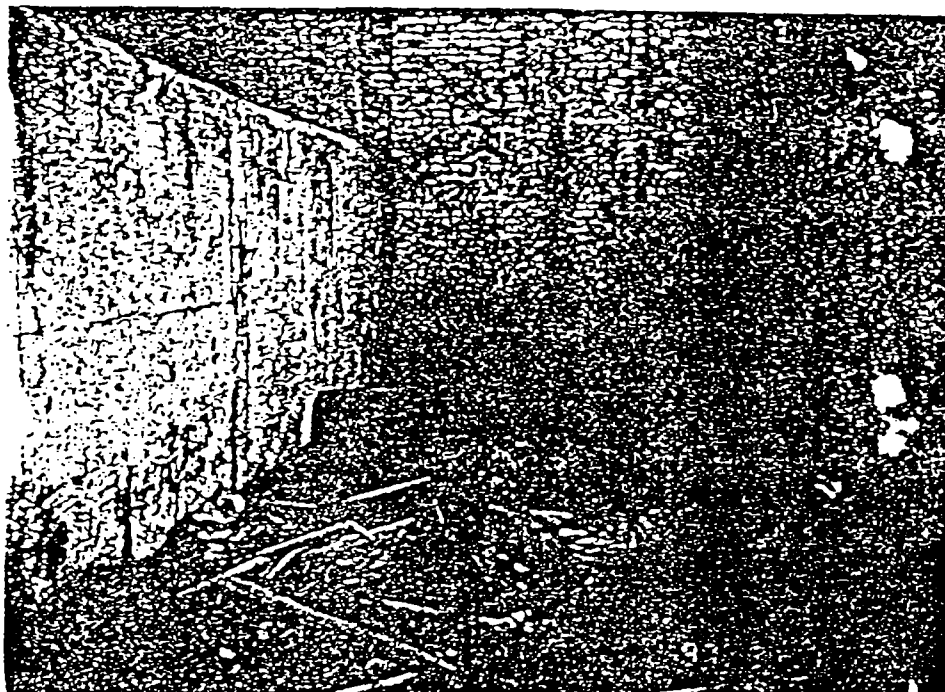
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PHOTOGRAPH NUMBER: 15 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: STORAGE BINS IN REAR OF BUILDING - EAST WALL



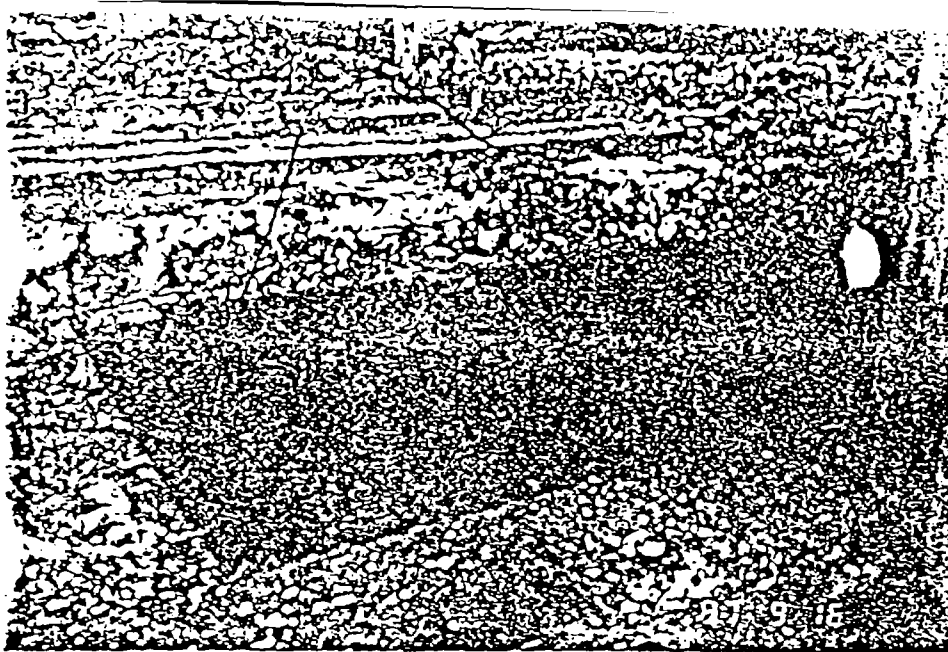
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: DRUMS/WASTE IN A STORAGE BIN



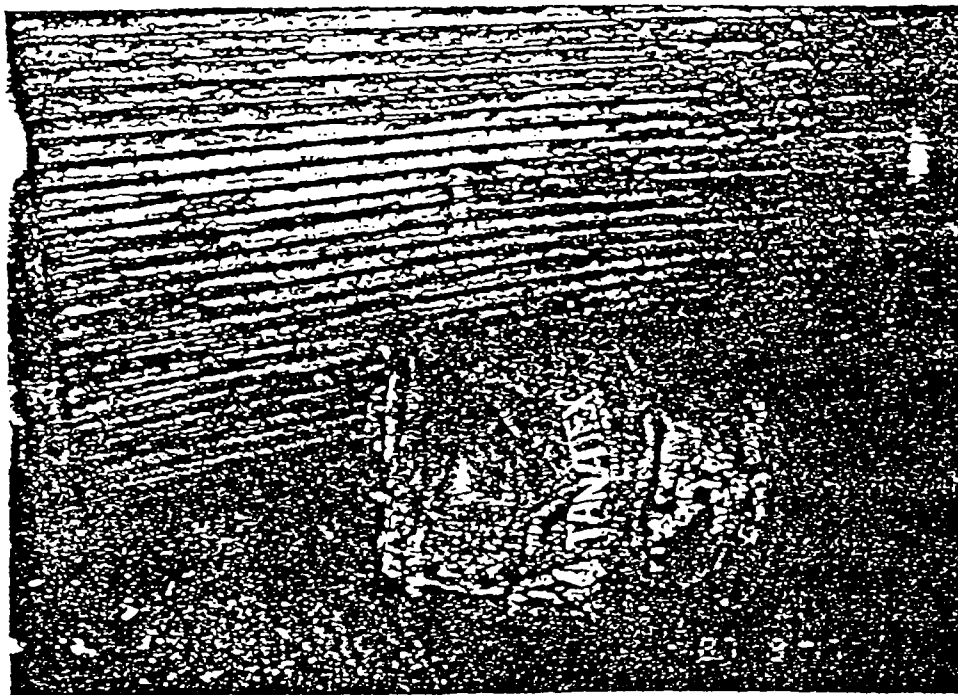
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT OUTSIDE STORAGE BIN



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 18 DIRECTION: W TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: DRUM ALONG SOUTHWEST WALL



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 19 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT IN REAR OF BUILDING



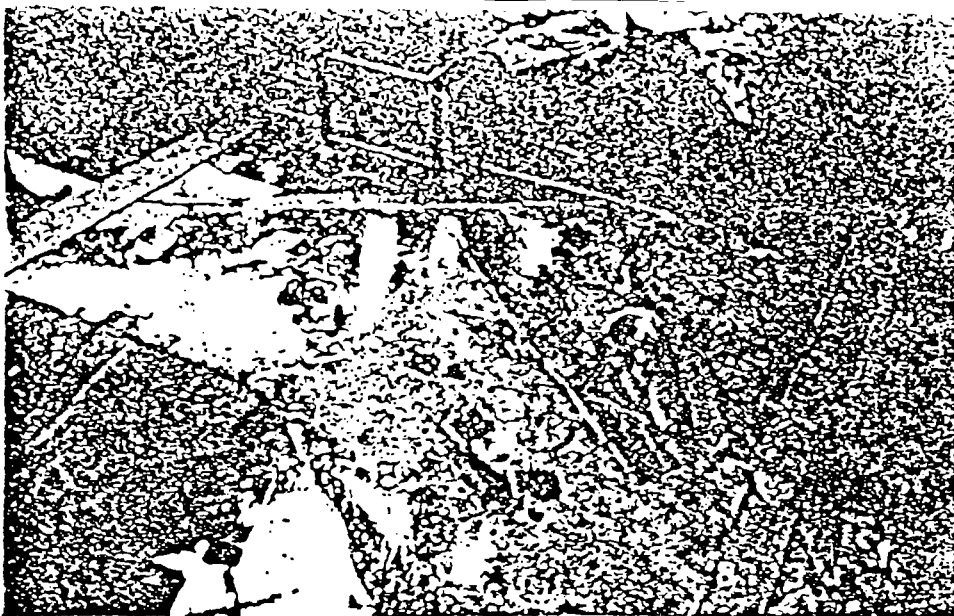
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CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL

SUBJECT: FALLEN ASBESTOS PIPE WRAP IN REAR OF BUILDING



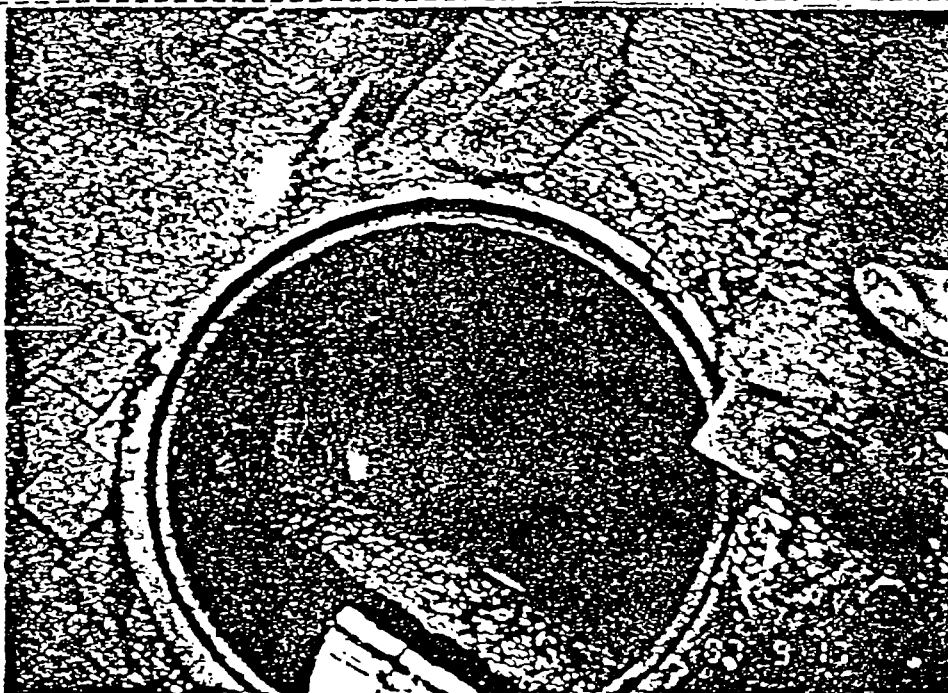
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PHOTOGRAPH NUMBER: 21 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 30 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 22 DIRECTION: DOWN TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 70 WITNESS: M. TURNBULL

SUBJECT: SEWER IN MIDSECTION OF BUILDING



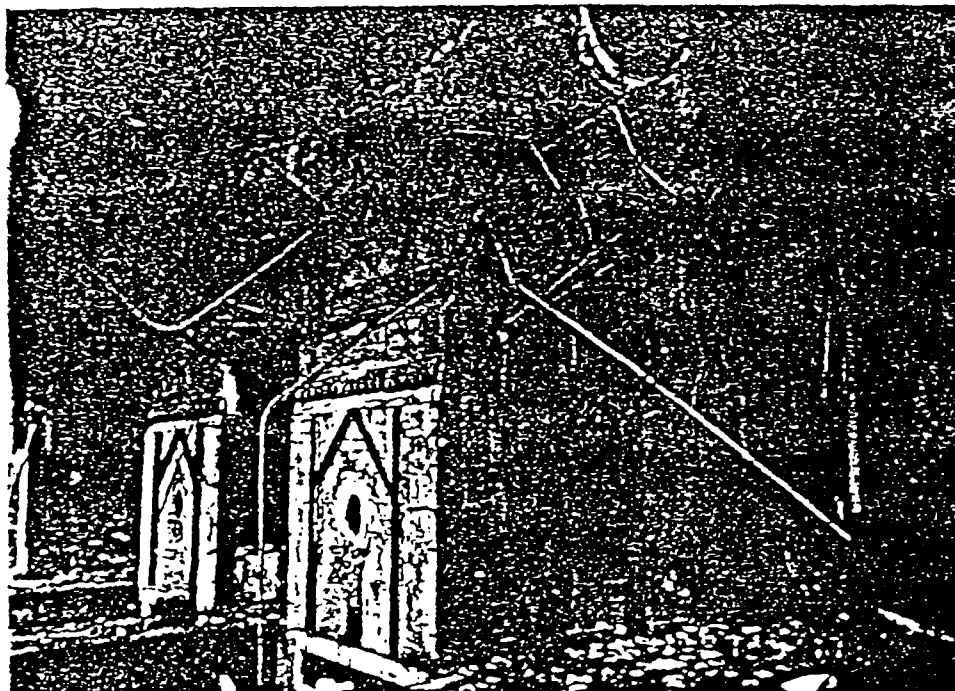
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 23 DIRECTION: UP TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: SUSPENDED STORAGE TANK IN MIDSECTION OF BUILDING



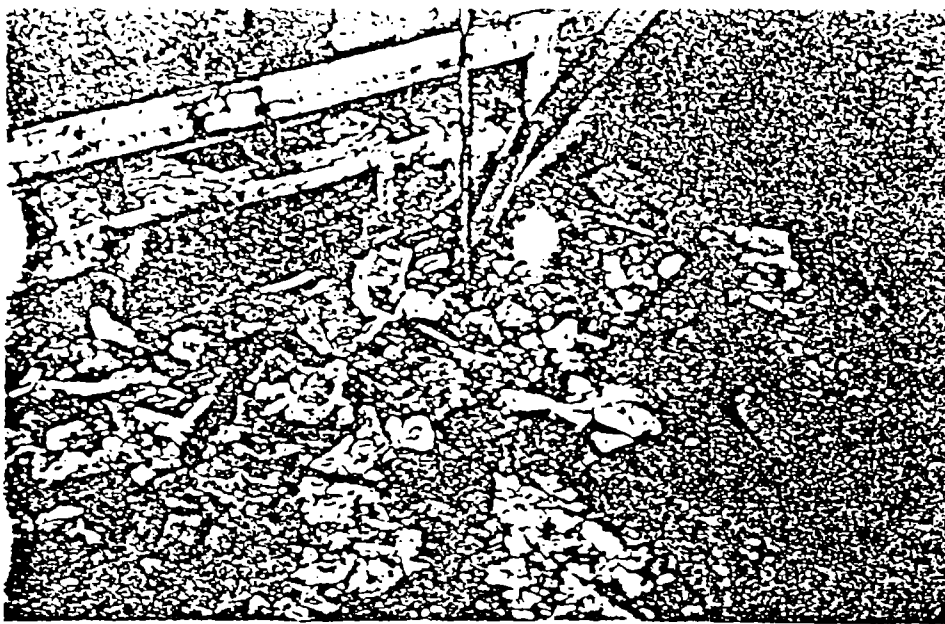
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 24 DIRECTION: SW TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: FURNACES IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 25 DIRECTION: W TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL

SUBJECT: ASBESTOS PIPE WRAP IN FURNACE PIT



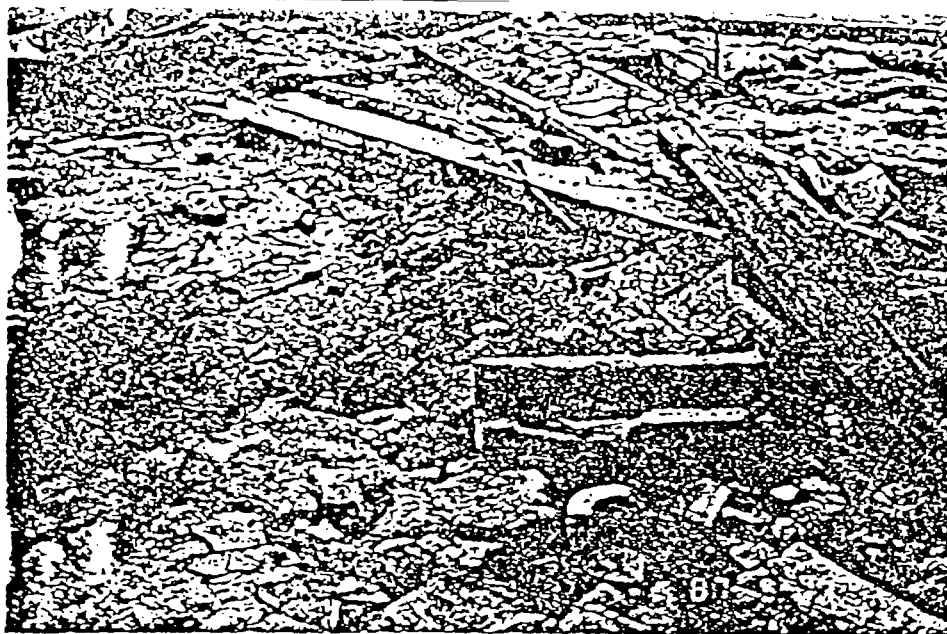
TE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 26 DIRECTION: N TIME: PM

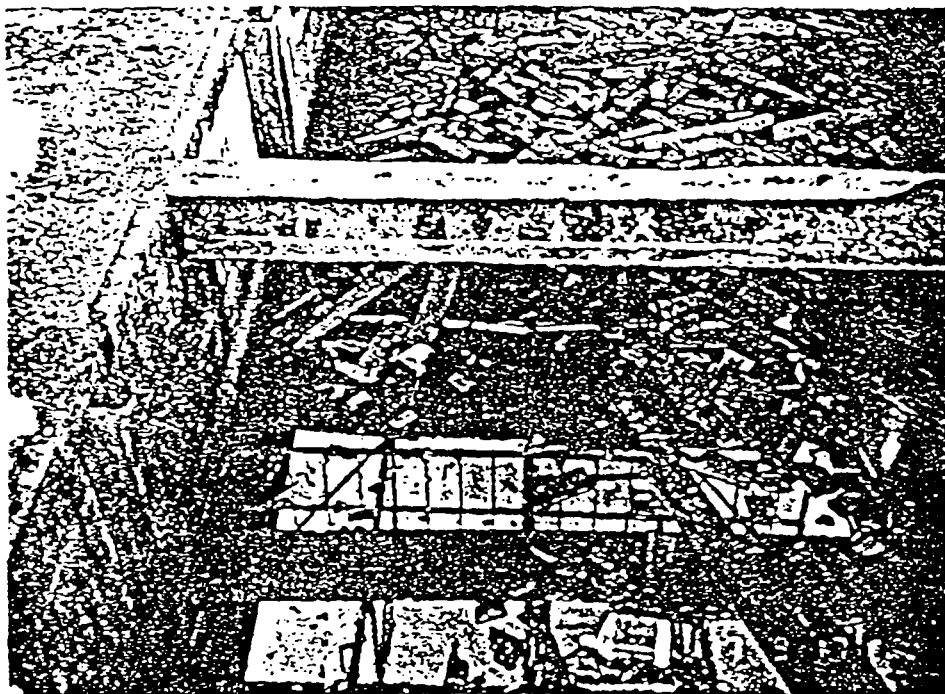
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

OTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL

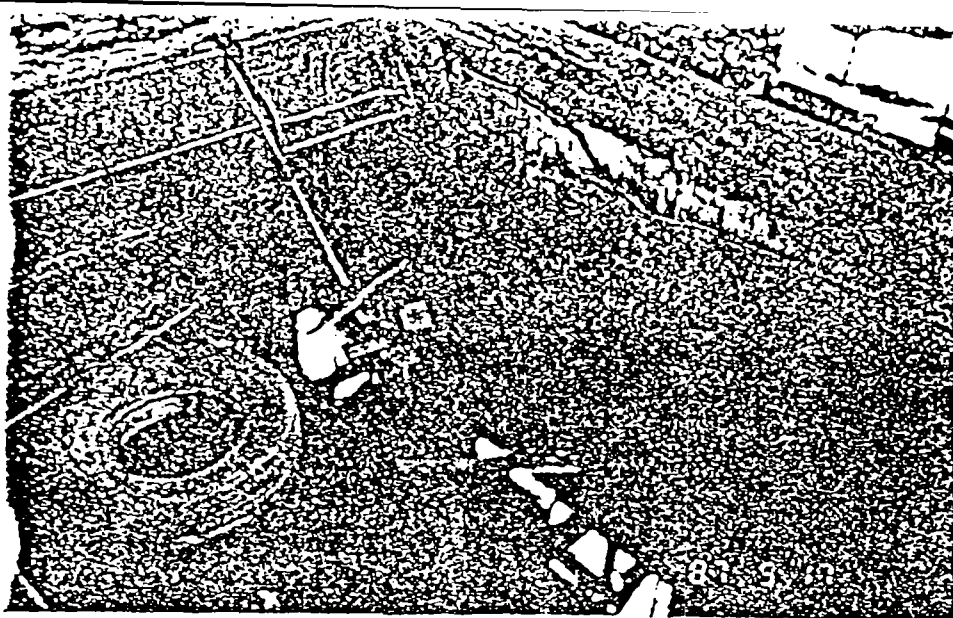
SUBJECT: FALLEN SECTION OF ROOF IN MIDDLE OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 27 DIRECTION: N TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
 SUBJECT: ASBESTOS PIPE WRAP IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 28 DIRECTION: N TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
 SUBJECT: MACHINERY PIT IN MIDSECTION OF BUILDING



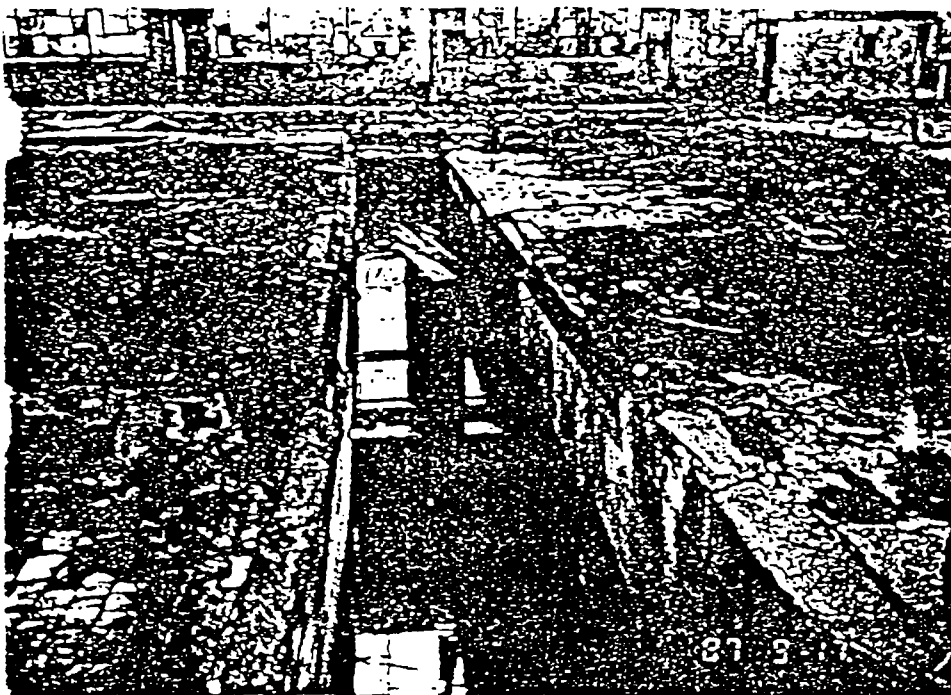
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 29 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT IN MIDSECTION OF BUILDING



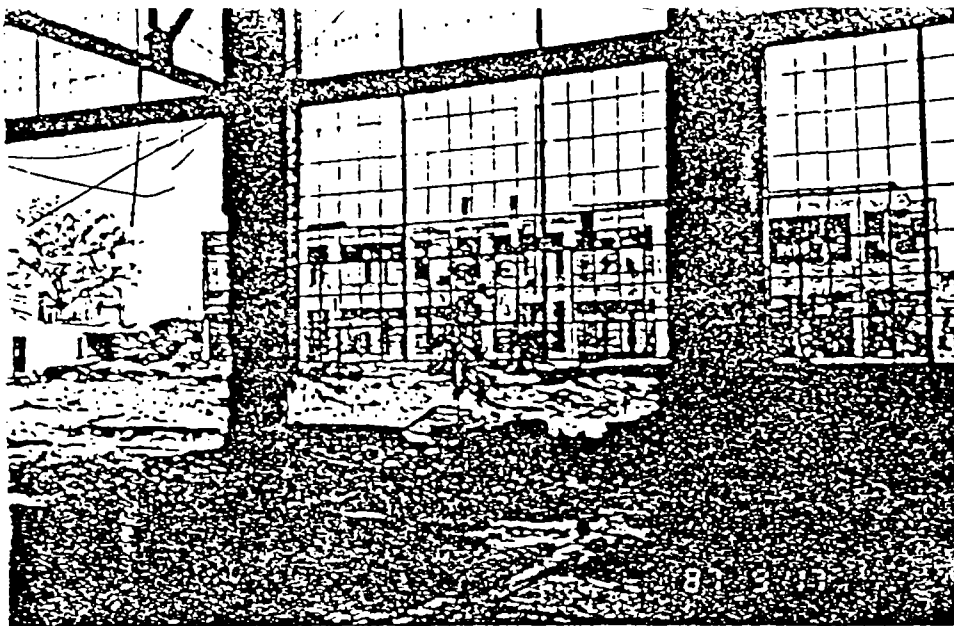
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 30 DIRECTION: E TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: MACHINERY TRENCH IN MIDSECTION OF BUILDING



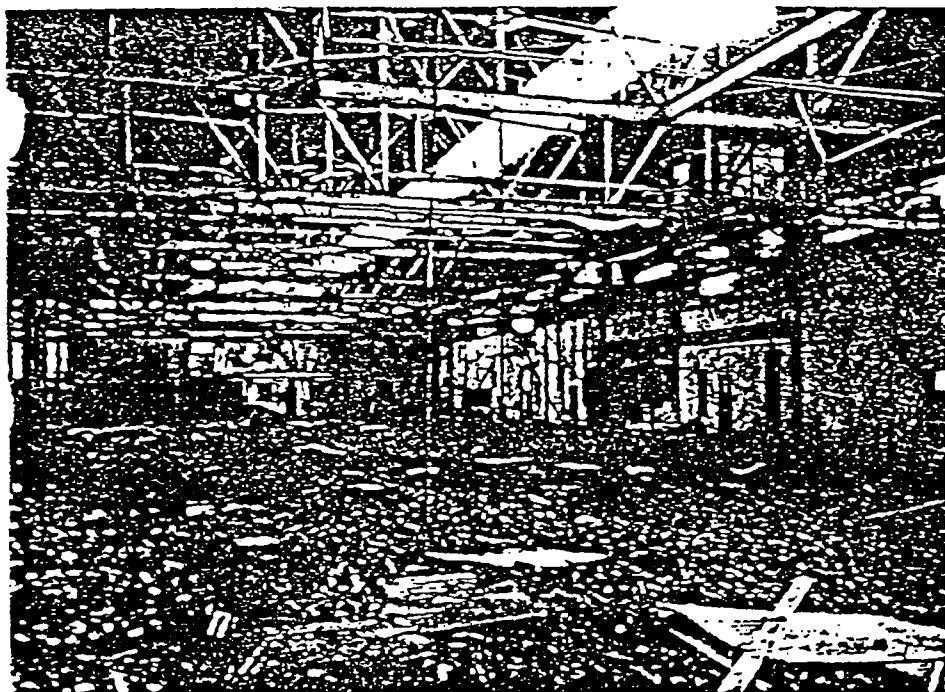
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 31 DIRECTION: E TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 70 WITNESS: M. TURNBULL

SUBJECT: BROKEN FOUNDATION IN MIDSECTION OF BUILDING



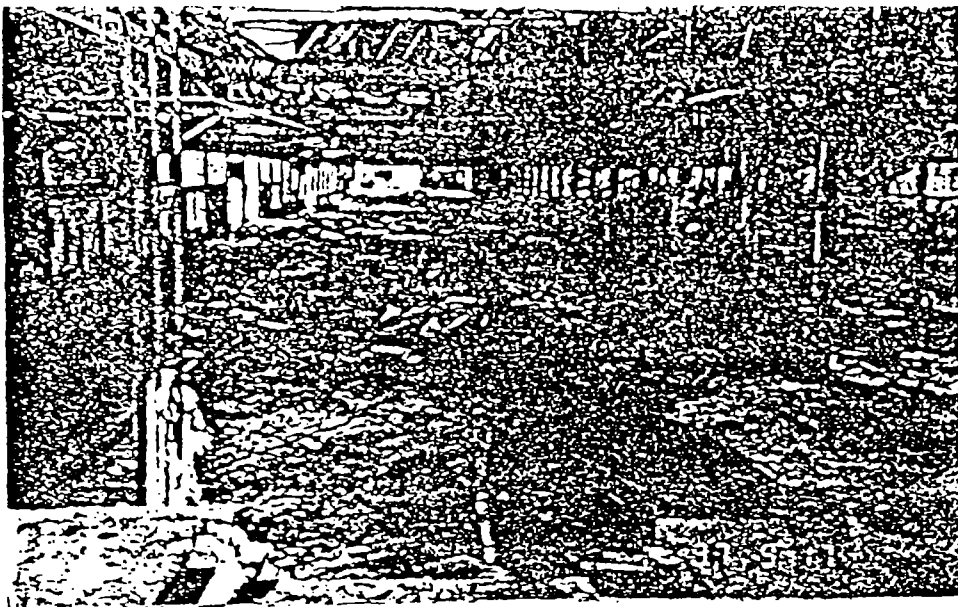
SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 32 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 70 WITNESS: M. TURNBULL

SUBJECT: PANORAMIC VIEW OF FRONT SECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 35 DIRECTION: S TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL

SUBJECT: PANORAMIC VIEW OF FRONT SECTION OF BUILDING

OSC OUTLINE FOR
REVERE COPPER AND BRASS

1.0 SUMMARY OF EVENTS

1.1 Location

- A. The Revere Copper and Brass (RCB) site is located at 5851 W. Jefferson Avenue, approximately 1 1/4 miles southwest of the Ambassador Bridge in Wayne County, Detroit, Michigan.
- B. The site is located in an urban residential and industrial area.
- C. RCB is adjacent to the Detroit River.

1.2 Initial Situation

- A. Revere Copper and Brass purchased the property and associated buildings in the 1920's.
- B. The major operation at the RCB facility was the melting of scrap and virgin copper into "cakes", which would then be fabricated into copper-bearing products.
- C. The facility was closed in 1985; the property was subsequently relinquished to the City of Detroit's Community Economic Development Department (CEDD).
- D. Once the City of Detroit assumed ownership of the property, scrap metal dealers removed support beams and other miscellaneous metal without authorization.
- E. Illegal dumping of tires, solid waste, and roofing shingles occurred during the scrapping activities.
- F. On September 14, 1987, the United States Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) to perform a site assessment at the RCB facility.
- G. The TAT collected six liquid samples of old equipment pits, and one soil sample below a punctured capacitor.
 - 1. The liquid samples were all below 6.0 parts per million (ppm) for total polychlorinated biphenyls (PCBs).
 - 2. The soil sample had 160,000 ppm PCBs.
- H. On March 16, 1988, the U.S. EPA was notified that drums and transformers had been dumped at the RCB site.

- I. The TAT responded to the dumping by documenting the items and sampling two standing pools of oily liquids.
 - 1. Eleven drums and two transformer carcasses had been dumped.
 - 2. The liquid samples had levels of 141,000 and 188,000 ppm for total PCB.
- J. Emergency Response Cleanup Services (ERCS) contractor Inland Waters provided twenty-four hour site security, from March 16 to March 18, 1988.

1.3 Federal Cleanup Action

On March 18, 1988, due to the City of Detroit being unable to respond to the situation, U.S. EPA On-Scene Coordinator (OSC) Peter Neithercut mobilized Inland Waters to perform a removal action. In addition, from the above-mentioned date Sentry Security provided site security during all non-working hours.

1.3.1 March 18, 1988

- A. The TAT performed four main activities.
 - 1. Implemented a site safety plan.
 - 2. Sampled drums #1 through 9.
 - 3. Documented site activities.
 - 4. Provided technical support to the OSC.
- B. Inland Waters performed four activities.
 - 1. Pumped the standing PCB-contaminated liquids into 2 overpack drums.
 - 2. Moved debris to allow for the placement of rolloff boxes.
 - 3. Placed the dumped drums into overpack drums.
 - 4. Began excavating contaminated soil, and placing it into a 20-yard rolloff box.

1.3.2 March 21, 1988

- A. The TAT performed two main activities.
 - 1. Provided technical support to the OSC.
 - 2. Documented site activities.

B. Inland Waters performed two activities.

1. Continued excavating the contaminated soil.
2. Removed two banks of capacitors which contained twelve capacitors each from a steam tunnel in the RCB building, and secured them in four overpacks.

1.3.3 March 22, 1988

A. The TAT performed three activities.

1. Sampled the most contaminated rolloff box, the pumped PCB liquids, decontamination water, and drum #3.
2. Provided technical support to the OSC.
3. Documented site activities.

B. Inland Waters performed five activities.

1. Swept the cement pad below the excavated soil.
2. Moved debris near W. Jefferson to establish a new staging area.
3. Restaged all drums and rolloff boxes at the new staging area, with the exception of one overpack of capacitors which had been pushed into an equipment pit.
4. Consolidated drums #7, 10, and 11 into drum #3.
5. Removed the decon line.

1.3.4 April 22, 1988

A. One roll-off box was sent to Chem Waste Management in Emelle, Alabama for disposal.

1.3.5 April 26, 1988

A. The two transformer carcasses were rinsed with kerosene, removed from the roll-off box, and sealed with Visqueen.

1.3.6 April 27, 1988

A. The three remaining roll-off boxes were pumped of free liquids and sent to Chem Waste Management in Emelle, Alabama, for disposal.

B. One non-PCB drum of oil was sent to Petrochem in Detroit, Michigan for disposal.

C. The following materials were sent to APTUS in Coffeyville, Kansas for disposal:

1. Two transformer carcasses;
2. Four overpacks of capacitors; forty-five capacitors in total;
3. Seven drums of pumped PCB liquids (two from original spill, five from roll-off boxes).
4. Eight overpacked drums of PCB-contaminated oils.

1.4 State and Local Efforts to Cleanup the Site

A. U.S. EPA Region V attorneys contacted the City of Detroit on March 17, 1988, but the City would not provide resources to respond to the removal action.

1.5 Cost Summary

3.0 Problems Encountered

- A. During the weekend of March 19 and 20, vandals had overturned the overpack drums, causing the contents of two of the drums to be released.
- B. On the night of March 21, vandals threw one overpack drum containing capacitors into an equipment pit inside the RCB building.

STATE OF MICHIGAN



JAMES J. BLANCHARD, Governor

DEPARTMENT OF COMMERCE

DOUG ROSS, Director

CORPORATION & SECURITIES BUREAU
6546 Mercantile Way
P.O. Box 30222
Lansing, Michigan 48909

General Information
(517) 334-6206

Enforcement Division
Lansing (517) 334-6209
Detroit (313) 256-1963

Mobile Home & Land Resource Division
(517) 334-6203

Securities Division
(517) 334-6200

Corporation Division
P.O. Box 30054
Lansing (517) 334-6327
Detroit (313) 256-1970

Records Information Unit
(517) 334-6304

Certification Unit
(517) 334-6311

Document Review Section
(517) 334-6302

Annual Report Section
(517) 334-6300

STATEMENT NO. 8843469

DATE: 05/23/88

****MAIL****

RECEIVED 05/23/88

JACOBS ENGINEERING
222 S RIVERSIDE PLAZA
STE 1870
CHICAGO

IL 60606

ATTN: SUE LORENZ

PHONE: 312 648 0002

RE YOUR ORDER:

QTY

617711 REVERE COPPER AND BRASS INCORPORATED
ARTICLES/CERT OF AUTHORITY AND AMENDMENTS
OTHER DOCUMENT: AMENDMENT FILED 12/19/55

1

**REMIT THIS AMOUNT: \$ 7.00 **

* RETURN THIS STATEMENT WITH YOUR PAYMENT *

Please write the statement number on your check and mail BOTH to the Corporation Division, Certification Unit, P.O. Box 30054, Lansing, MI 48909. If you have questions, please contact the Certification Unit at the address stated above. ALWAYS WRITE THE STATEMENT NUMBER ON YOUR CORRESPONDENCE.

RECEIVED
REGION V

MAY 26 1988

*Sue -
Sign & assign
WA # + Return
Statement. Jh. miki*

A003

FILED BY DEPARTMENT JUN 20 '81

1980 MICHIGAN ANNUAL REPORT - PROFIT CORPORATIONS
(SEE ACCOMPANYING FILING INSTRUCTIONS)

FILING FEE
\$15.00

This report shall be filed by all profit corporations before May 16, 1980 showing condition at the close of business on _____ upon the date of the close of the latest fiscal year next preceding the time for filing, or the date of incorporation or admittance during 1980. This report is submitted in accordance with the provisions of Section 911, Act 284, P.A. of 1972, as amended, as follows:

This Return Must be Filed before May 16, 1980	Report of Condition on December 31, 1979 or _____	Corporate Number 617711
---	---	--------------------------------

1. Corporate Name

For Department Use Only

REVERE COPPER AND BRASS, INCORPORATED	Extension To:
ROME NY 13440	<input type="checkbox"/> With Fee
	<input type="checkbox"/> Without Fee

2. Resident Agent

4. Federal Employer No.

5. Term of Existence

THE CORPORATION COMPANY		PERPETUAL
--------------------------------	--	------------------

3. Registered Office Address in Michigan - No., Street, City, Zip

6. Incorporation Date

7. State of Incorporation

15 GRISHOLD DETROIT MI 48226	12/05/1928	MD
	8. Date of Admittance (Foreign corp.)	9. The Act Under Which Incorporated (If other than Act 327, 1931 or Act 284, 1972, as amended)

10. Corporate Officers: Include Name, Street and Number, City, State, and Zip Code

President
Secretary - if different than above
Schedule Attached
Treasurer - if different than above
Vice-President - if any

11. Names and complete addresses of all directors. (Address, City, State, Zip). If space insufficient, attach separate sheet. (If different than officers)

Schedule Attached

12. Corporate Stock Report - Total Authorized Capital Stock (Not merely outstanding)

Class Common/Preferred	No. of Shares Authorized With Par-Value	Par-Value Per Share	Total Authorized Capital	Amount Subscribed	Amount Paid-In
C	10000000.000	\$ 2.500	\$ 25000000.000	None	\$ 13 181 840
P	0.000	\$ 0.000	\$ 1000000.000		\$ 1 503 300
	No. of Shares Authorized Without Par-Value		Amount Subscribed		Amount Paid-In
P	084 967	\$	None	\$	None
		\$		\$	

MAY 19 1980

CERTIFIED COPY

Michigan. (The balance sheet of a Michigan corporation shall be the same balance sheet as furnished to shareholders.)

ASSETS	TOTAL	WITHIN MICH.	WITHOUT MICH.	LIABILITIES AND CAPITAL
Cash	11316991	1500	11315491	Notes and Accounts Payable, Trade 87 275 653
Notes and Accounts Receivable	62576769	2016846	60559923	Notes and Accounts Payable, Other
Deferred Payment Notes, Contracts, Etc.				Accrued Expenses
Inventories	102155953	2430293	99725660	Long Term Outstanding Indebtedness 187 984 024
Prepaid Expenses	937172	212059	725113	Reserves and Contingent Liabilities
Land	2720925	1100000	1620925	Deferred Income Tax 6 774 000
Depreciable Assets				
Machinery and Equipment				Capital Stock
Furniture and Fixtures	282882414	89195022	273962912	Common Stock (Par Value) 51 032 617
Buildings				Preferred Stock (Par Value) 1 503 300
Other				No Par Value Stock
Less Depreciation	137482484	7889334	129593150	Schedule of Surplus and
Total Depreciable Assets	145399930	10301681	144369762	Undivided Profits
Investments				Earned Surplus
Investments in Subsidiaries				Capital Surplus
Other Investments	110437830		110437830	Other Surplus
Other Assets	11950184		11950184	Total Surplus and Undivided Profits 112 926 160
TOTAL ASSETS	447495754	67908664	40704888	TOTAL LIABILITIES & CAPITAL 447 495 754

14. Principal business office and principal place of business in Michigan, if different.

The place or places of doing business within and without Michigan.

New Bedford and Plymouth, Massachusetts

States in which corporation is qualified to do business.

Rome & Brooklyn, NY, Ohio, Illinois, California and elsewhere in the U.S.

15. Nature and type of business in which the corporation is engaged.

Fabrication of nonferrous metals

16. Is the corporation's principal line of business manufacturing?

Yes

17. Assumed names under which the corporation transacts business in Michigan.

18. Name of parent corporation.

List of subsidiary corporations.

FILING FEE \$15.00

PENALTY

TOTAL 15.00

RETURN TO:

DEPARTMENT OF COMMERCE
CORPORATION AND SECURITIES BUREAU
CORPORATION DIVISION
P.O. BOX 90067
LANSING, MICHIGAN 48909

MAKE REMITTANCE

PAYABLE TO:

"STATE OF MICHIGAN"

I declare under penalties of law that I am one of the persons authorized and responsible for the signing of this report and have examined the same, including accompanying schedules and statements and to the best of my knowledge and belief the report is true, correct and complete.

BY

(Signature of Chairperson, Vice-Chairperson, President or Vice-President)

H. C. Lavarney, Jr., Vice President

(Type or Print Name and Title)

DATE SIGNED

May 15, 1980

REVERE COPPER AND BRASS INCORPORATED

ROME, NEW YORK

OFFICERS

DECEMBER 31, 1979

W. F. Collins	New York, New York	President and Chief Executive Officer
N. J. Cartmill	New Bedford, Mass.	Vice President
J. W. Eason	New York, New York	Executive Vice President
J. J. Campbell	Newport, Arkansas	Vice President
H. B. Cannon, Jr.	Scottsboro, Alabama	"
F. X. Cavanagh	New York, New York	"
J. M. Eikenberg	Clinton, Illinois	"
C. R. Getty	Rome, New York	"
J. H. Groeger	New York, New York	"
B. W. Magneson	North Liberty, Indiana	"
R. M. Payne	New York, New York	"
W. S. Prentiss	Rome, New York	"
Rudy Rentsch	Scottsboro, Alabama	"
R. L. Veals	New York, New York	Vice President and Treasurer
Mary E. Berthel	New York, New York	Assistant Secretary
W. R. Brent	New York, New York	Secretary and Assistant Treasurer
G. F. Sweeney	Rome, New York	Assistant Treasurer
S. H. Kaprelian	New York, New York	Assistant Secretary
S. J. Stapp	New York, New York	Assistant Secretary
A. L. Molowa	New York, New York	Vice President and General Counsel
H. G. Lavarney, Jr.	Rome, New York	Vice President and Controller
B. F. Croasdale	Rome, New York	Assistant Controller
E. F. Getbehead	Rome, New York	"
F. A. Leone, Jr.	Rome, New York	"

REVERE COPPER AND BRASS INCORPORATED

ROME, NEW YORK

DECEMBER 31, 1979

DIRECTORS

D. W. Baker	350 Park Ave., New York, New York
W. F. Collins	605 Third Ave., New York, New York
J. W. Eason	605 Third Ave., New York, New York
D. D. Gray	80 Maiden Lane, New York, New York
J. H. Groeger	605 Third Ave., New York, New York
F. G. Hamrick	New York, New York
R. L. Veals	605 Third Ave., New York, New York
H. G. Thalheim	120 Broadway, New York, New York

REVERE COPPER AND BRASS INCORPORATED

ARTICLES OF RESTATEMENT OF THE CHARTER

As Filed November 14, 1955

REVERE COPPER AND BRASS INCORPORATED

ARTICLES OF RESTATEMENT OF THE CHARTER

REVERE COPPER AND BRASS INCORPORATED, a Maryland corporation (hereinafter called the "Company"), hereby certifies to the State Tax Commission of Maryland that:

I

The charter of the Company is hereby restated to read as follows:

REVERE COPPER AND BRASS INCORPORATED
CERTIFICATE OF INCORPORATION
(As Amended)

FIRST. That we, the subscribers, George J. Carr, whose post-office address is 70 Wall Street, New York, N. Y., Irving G. Idler, whose post-office address is 22 William Street, New York, N. Y., and Robert Wilson, whose post-office address is 67 Wall Street, New York, N. Y., all being adult persons, do, under and by virtue of the General Laws of the State of Maryland authorizing the formation of corporations, associate ourselves with the intention of forming a corporation.

SECOND. The name of the corporation (which is hereinafter called the Company) is Revere Copper and Brass Incorporated.

THIRD. The purposes for which the Company is formed and the business or objects to be carried on and promoted by it are as follows:

(1) To mine, refine, smelt, manufacture, roll, re-roll, cast, stamp, plate, buy, own, sell, import, export and deal in and with brass, copper, bronze, iron, steel, zinc, tin, aluminum and other metals of all kinds and all combinations or compounds thereof, whether in the form of legs, pigs, bars, rolls, ingots, rods, plates, sheets, tubes, tubing, wires, castings or otherwise, and all materials, supplies and articles which may be produced or manufactured therefrom.

(2) To carry on the business of warehousing, dry and cold storage warehousing and wharfage, and all business of any kind incident thereto; to purchase, lease, manufacture, construct or otherwise acquire and to hold, use, mortgage, sell, lease, exchange or otherwise dispose of and deal with radiation and heating devices, systems and

apparatus for steam, water, electricity and otherwise, engines, cars, trucks, vehicles, wagons, cranes, vessels, boats and other conveyances of every kind and description; to issue certificates, warehouse receipts and warrants, negotiable or otherwise, for goods, wares or merchandise warehoused, stored, transported, conveyed or otherwise handled or dealt in or with; to make advances and loans on the security of such goods, wares, merchandise, certificates, receipts, warrants or otherwise; to construct, purchase, lease or otherwise acquire, hold, own, develop, improve, sell, assign, transfer, exchange, lease, mortgage and otherwise dispose of wharfs, piers, docks, cranes, tracks, side tracks, railroad sidings, roads and other facilities of every kind and description; and generally to carry on or undertake any business, undertaking, transaction or operation which may be carried on in connection with the above or calculated directly or indirectly to enhance the value of or render profitable any of the properties, rights or business of the Company.

(3) To engage in and carry on the business of importing, exporting, making, manufacturing, building, erecting, producing, furnishing, repairing, buying, selling and otherwise dealing in and with goods, wares and merchandise and personal property of every kind and description.

(4) To promote, institute, enter into, conduct, perform, assist or participate in every kind of commercial, mercantile, manufacturing, mining, transportation or industrial enterprise, business, work, contract, undertaking, venture or operation in any part of the world; and for any such purpose or any other lawful object or purpose to purchase, lease or otherwise acquire, take over, hold, sell, liquidate, or otherwise dispose of the real estate, plants, equipment, inventory, merchandise, materials, stock, good will, rights, franchises, patents, trade-marks and trade-names and other properties of corporations, associations, partnerships, firms, trustees, syndicates, individuals, combinations, organizations and other entities located in or organized under the laws of any part of the world; to continue, alter, extend and develop their business, assume their liabilities, to guarantee or become surety for the performance of their obligations in connection with or in furtherance of any purpose, object or business of the Company, and to reorganize their capital and participate in any way in their affairs; and to take over

as a going concern and to continue in its own name or to discontinue or abandon any business so acquired.

(5) To act as financial, commercial, special or general agent or representative of bodies politic, corporations, associations, partnerships, firms, trustees, syndicates, individuals, combinations, organizations and other entities located in or organized under the laws of any part of the world and as such to develop, improve and extend the property, trade and business and interests thereof and to aid any lawful enterprise in connection therewith; to undertake and carry on any business, undertaking, venture, transaction or operation which may be undertaken or carried on by promoters, contractors, merchants, commission men, brokers and agents; and to purchase, lease, manufacture, construct or otherwise acquire and to hold, use, assign, pledge, mortgage, sell, lease, exchange or otherwise dispose of, import, export and generally deal in and with goods, wares, merchandise, grants, options, concessions, franchises, contracts and all kinds of personal and real property or any interest therein, without limit as to amount.

(6) To construct, purchase, lease or otherwise acquire, hold, own, develop, improve, sell, assign, transfer, exchange, lease, mortgage, pledge and otherwise dispose of, and to aid and subscribe toward the acquisition, development or improvement of, real and personal property and rights and privileges therein, wherever situated, within or without the State of Maryland.

(7) To purchase, lease, hire or otherwise acquire, hold, own, construct, erect, improve, manage and operate, and to aid and subscribe toward the acquisitions, construction or improvement of lands, plants, mills, factories, warehouses, works, buildings, machinery, equipment, tools, engines, apparatus, fixtures, facilities and any other property or appliances, real, personal or mixed, and rights and privileges therein, within or without the State of Maryland.

(8) To apply for, obtain, license, purchase or otherwise acquire, and to hold, own, use, exercise, develop, operate, license, sell, assign, mortgage, lease or otherwise dispose of, trade-marks, trade-names, patents, inventions, improvements, processes, formulas, copy-rights, and rights of every kind and description, whether or not registered, copy-righted or secured under or by virtue of the laws of the United

States of America, or of any State thereof or of any foreign country or countries, or of any political subdivision thereof.

(9) To acquire by purchase, subscription or otherwise, and to hold, sell, assign, transfer, exchange, lease, mortgage, pledge, or otherwise dispose of, any shares of stock of, and voting trust certificates for any shares of stock of, and any scrip, rights, warrants, bonds and other obligations, securities and evidences of indebtedness and convertible securities issued or created by any other corporation or association or other entity located in or organized under the laws of any part of the world, and any bonds or other securities or evidences of indebtedness of the United States of America, or of any foreign country, or of any state, territory, district, colony, dependency or other political subdivision thereof or therein, and of any partnership or individual; and, while the owner or holder of any thereof, to possess and exercise in respect thereof any and all of the rights, powers and privileges of individual holders or owners, including the right to vote to the full extent now or hereafter afforded thereby or by law.

(10) To acquire by purchase, lease or otherwise, and to hold, own, conduct, sell, assign, transfer, exchange, lease, mortgage, pledge or otherwise dispose of, all or any part of the property, real or personal, tangible or intangible, of any nature whatsoever, including the good-will, franchises, assets and business, of any other corporations, associations, partnerships, firms, trustees, syndicates, individuals, combinations, organizations and other entities located in or organized under the laws of any part of the world and engaged in the same or a similar business to any extent whatsoever, and to pay for the same in part or in whole in cash, stocks, voting trust certificates for shares of stock, scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness or convertible securities of the Company, and to assume, pay or otherwise provide for any or all obligations and liabilities of any thereof.

(11) In any manner and to any extent now or hereafter authorized or permitted by law, to issue shares of its stock of any and all classes, scrip, rights, warrants and other obligations, securities and evidences of indebtedness and convertible securities, to raise or provide money or other considerations for any of the purposes or objects of the Com-

pany or in payment for property purchased or otherwise acquired, or for any other lawful purpose, object or consideration.

(12) To purchase or otherwise acquire, and to hold, pledge, sell or otherwise dispose of, shares of its own stock of any and all classes, voting trust certificates for shares of its own stock, scrip, rights, warrants, bonds and other obligations, securities and evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of its own stock, and to hold any or all thereof as trustee, committee, guardian, executor, administrator or in any other fiduciary capacity or otherwise, and to exercise all rights thereof or thereunder as holder in any such fiduciary capacity or as owner and holder thereof individually or otherwise in such manner and to such extent as may be now or hereafter authorized or permitted by law.

(13) In any manner and to any extent now or hereafter authorized or permitted by law, to borrow or otherwise raise money and to issue shares of stock, voting trust certificates for shares of stock, scrip, rights, warrants, bonds and other obligations, securities and evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of its own stock, for or on account of money so borrowed or otherwise raised, or for any other purpose, object or consideration, and to secure the payment of the principal and premium thereof and of the interest thereon and/or other obligations represented thereby by mortgage upon, or pledge or conveyance or assignment in trust of, the whole or any part of the property of the Company, real personal or mixed, whether at the time owned or thereafter acquired; and to sell, pledge, discount or otherwise dispose of any such stock, voting trust certificates, scrip, rights, warrants, bonds and other obligations, securities and evidence of indebtedness.

(14) To make, execute, endorse and accept promissory notes, bills of exchange and other negotiable instruments; and to redeem any debt or other obligation before the same shall fall due on any terms and at any premium.

(15) To aid in any manner any corporations, associations, partnerships, firms, trustees, syndicates, individuals, combinations, organiza-

tions and other entities any stock, voting trust certificates for shares of stock, scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock, of which are owned or held by or for the Company, or in which, or in the welfare of which, the Company shall have any interest, and to do any acts or things designed to protect, preserve, improve or enhance the value of any such stock, voting trust certificates, scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness or any other property of the Company.

(16) In connection with or in furtherance of any purpose, object or business of the Company, to guarantee the payment of dividends upon any shares of stock, or the payment of the principal and premium of, and of the interest on, any bond or other obligation, security or evidence of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock, or the performance of any other contract, promise or other obligation, of any corporations, associations, partnerships, firms, trustees, syndicates, individuals, combinations, organizations and other entities located in or organized under the laws of any part of the world.

(17) To engage in and carry on, any other purpose, object or business which may properly or conveniently be conducted in conjunction with any of the purposes, objects or businesses of the Company and which might be engaged in or carried on by a corporation formed under said General Laws.

(18) To carry out all or any part of the foregoing objects and purposes and to conduct business in all or any of its branches as principal, factor, agent, contractor or otherwise, either alone or through or in conjunction with any corporations, associations, partnerships, firms, trustees, syndicates, individuals, combinations, organizations and other entities located in or organized under the laws of any part of the world, and, in carrying out, conducting or performing its business and attaining or furthering any of its objects and purposes, to maintain offices, branches and agencies in any part of the world, to make and perform any contracts and to do any acts and things, and to exercise any powers suitable, convenient or proper for the accom-

plishment of any of the objects and purposes herein enumerated or incidental to the powers herein specified or which at any time may appear conducive to or expedient for the accomplishment of any of such objects and purposes.

(19) It is the intention that the objects and purposes specified in the foregoing clauses of this Article THIRD shall not be in any wise limited, qualified or restricted by reference to, or inference from, any other clause of this or any other Article in this Certificate of Incorporation, but that the objects and purposes specified in each of the clauses of this Article shall be regarded as independent objects and purposes; and it is also the intention that said clauses be construed as purposes, objects and powers and, generally, that the Company shall be authorized and empowered to exercise and enjoy all other purposes, objects, powers, rights and privileges granted to, or conferred upon, and to conduct and carry on any and all businesses which might or would be conducted or carried on by, corporations of this character, by the laws of the State of Maryland now or hereafter in force, and the enumeration of certain purposes as herein specified is not intended as exclusive of, or as a waiver of, any of the purposes, objects, powers, rights or privileges granted or conferred by the laws of said State now or hereafter in force.

FOURTH. The post-office address of the principal office of the Company in the State of Maryland is No. 10 Light Street, Baltimore 2, Maryland. The name and post-office address of the resident agent of the Company in the State of Maryland is The Corporation Trust Incorporated, No. 10 Light Street, Baltimore 2, Maryland. Said resident agent is a Corporation of the State of Maryland.

FIFTH. The total amount of the authorized capital stock of the Company is 3,000,000 shares without nominal or par value, all of which are Common Stock.

SIXTH. The Company is hereby authorized and empowered to create and issue warrants and other rights entitling the owner or bearer thereof to convert the same into or exchange the same for or creating rights to purchase or otherwise acquire shares of stock of the Company of any and all classes and having such terms and provisions as the Board of Directors may from time to time deem advisable, and the

Board of Directors is hereby authorized and empowered to authorize the issuance of such warrants and other rights from time to time for such considerations as the Board of Directors may deem advisable.

Except as now or hereafter otherwise provided by law, the Board of Directors shall have full power and discretion to prescribe and regulate from time to time the procedure to be followed in and all other matters concerning the creation, issue and exercise of any warrants or rights and the setting aside of stock for the purposes thereof and the issue of such stock upon the exercise thereof.

SEVENTH. With the consent of a majority of all the shares of stock of the Company at the time issued and outstanding and entitled to vote expressed in writing or by vote:

(a) The Company may sell, lease, exchange or transfer all its property and assets as an entirety or substantially as an entirety, including its good-will and franchises, for such considerations and upon such terms as may be approved by such majority of such shares of stock.

(b) The Company may close its affairs and be dissolved in any manner now or hereafter provided by law.

(c) The Company may merge or consolidate with any other corporation or corporations organized under the laws of the United States of America, the State of Maryland, or any other State of the United States of America, or of any foreign state, organized for the purpose of carrying on any kind or kinds of business, whether or not the certificate of incorporation or by-laws of such other corporation or corporations contain all or any of the provisions contained in this Certificate of Incorporation and the by-laws of the Company, to such extent and in any manner as may be now or hereafter authorized or permitted by law.

EIGHTH. The Company reserves the right to make any amendment of this Certificate of Incorporation and/or of any amendment hereof hereafter effected, including (without intending hereby to limit or qualify the foregoing general provision) the right to make any amendment which changes the terms of any of the now or hereafter

authorized and or outstanding stock, of any and all classes, by classification, reclassification or otherwise, and or any amendment authorizing any sale, lease, exchange or transfer of the property and assets of the Company as an entirety or substantially as an entirety, with or without its good-will and franchises, if a majority of all the shares of stock at the time issued and outstanding and entitled to vote, vote in favor of such amendment or consent thereto in writing; provided, however, that nothing contained in this Article shall be deemed to limit or restrict the Company in the full and proper use and enjoyment of its purposes, objects and powers or otherwise, as now or hereafter set forth in this Certificate of Incorporation or any amendment hereof hereafter in force or as now or hereafter authorized or permitted by law; and all rights conferred upon holders of shares of stock and of scrip, rights, warrants, bonds or other obligations, securities and evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock, are granted subject to this reservation.

NINTH. The number of directors now in office is 16 and the names of the directors so now in office are as follows:

Elliott V. Bell	C. A. Macfie
K. C. Brownell	E. L. Newhouse, Jr.
C. Donald Dallas	E. H. R. Revere
J. C. Emison	Oscar S. Straus
C. C. Felton	Roger W. Straus
L. G. Glesmann	Simon D. Strauss
J. M. Kennedy	R. Worth Vaughan
A. E. McCormick	R. P. Winberg

No director need be a stockholder of the Company.

TENTH. The Board of Directors shall have general management and control of all the property and assets of the Company and may exercise all the powers and purposes of the Company except such as may be now or hereafter expressly limited by law to the stockholders, and, without limiting the generality of the foregoing, except as may be now or hereafter expressly provided by law or by this Certificate of Incorporation, the Board of Directors without the consent or other

action of stockholders of the Company, may authorize the Company to purchase, lease or otherwise acquire, hold, own, sell, mortgage, pledge or otherwise dispose of any property and assets, real and personal, without as well as within the State of Maryland, and upon such terms as the Board of Directors may, from time to time, determine, and in payment for any property or assets or for cash to issue or cause to be issued shares of stock of any and all classes and/or any scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock, whether now or hereafter authorized, without limitation or restriction.

ELEVENTH. No holder of stock of the Company, of whatever class, shall have any preferential or other right to subscribe to any new, additional or increased shares of stock of the Company of any class or to any scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock of the Company of any class, nor any right to subscribe to any thereof, other than such, if any, as the Board of Directors may from time to time determine; and any shares or any rights, warrants, bonds or other obligations, securities or evidences of indebtedness convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock of the Company of any class, and any rights to subscribe to any thereof, which the Board of Directors may determine to offer for subscription to holders of stock may, as the Board of Directors may from time to time determine, be offered to holders of any class or classes of stock at the time existing to the exclusion of holders of any or all other classes of stock at the time existing.

TWELFTH. The Board of Directors is hereby authorized and empowered to authorize the issuance, from time to time, of shares of stock of any and all classes, including shares of stock without par value, and/or of any amount of convertible securities, including securities convertible into shares of stock without par value, and/or of scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock, and/or

of shares of stock issuable upon the conversion or exchange or exercise of any thereof, whether now or hereafter authorized, for such considerations as the Board of Directors may deem advisable, without limitation or restriction.

THIRTEENTH. The Board of Directors is hereby authorized and empowered to cause to be set aside as surplus, which may be designated "general reserve," "paid-in surplus" or any other designation or designations from time to time determined by the Board of Directors, any amounts contributed, from time to time, to the Company for such purpose, whether in connection with the issuance of any shares of stock of any class, and/or of any scrip, rights, warrants, bonds or other obligations, securities or evidences of indebtedness convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of stock, and/or of shares of stock issuable upon the conversion or exchange or exercise of any thereof, whether now or hereafter authorized, or otherwise. Such surplus may, in whole or in part, from time to time, be applied to and used for dividends upon any and all classes of stock of the Company and/or used for, applied or transferred to, reserve, capital and/or any other lawful corporate purposes of the Company, as the Board of Directors may, from time to time, determine.

FOURTEENTH. The Board of Directors is hereby authorized and empowered, from time to time, to fix and determine and to vary the amount of working capital, and to determine and direct the use and disposition of any working capital, surplus, reserve, net profits and/or other funds or property, in whole or in part, subject, however, to the provisions of this Certificate of Incorporation and any amendment hereof hereafter in force; and to cause the Company to purchase or otherwise acquire shares of its own stock of any and all classes, voting trust certificates for shares of its own stock, scrip, rights, warrants, bonds and other obligations, securities and evidences of indebtedness, whether or not convertible into or exchangeable for or creating rights to purchase or otherwise acquire shares of its own stock, to such extent and in such manner and upon such terms as the Board of Directors may from time to time determine, without limitation or restriction.

FIFTEENTH. No contract or other transaction between the Company and any other corporation and no act of the Company shall in

any way be affected or invalidated by the fact that any of the directors or officers of the Company are pecuniarily or otherwise interested in, or are directors or officers of, such other corporation. Any director or officer individually, or any partnership of which any director or officer may be a member, may be a party to, or may be pecuniarily or otherwise interested in, any contract or transaction of the Company, provided that the fact that he or such partnership is so interested shall be disclosed or shall have been known to the Board of Directors or a majority thereof, and any director of the Company, who is also a director or officer of such other corporation or who is so interested, may be counted in determining the existence of a quorum at any meeting of the Board of Directors which shall authorize any such contract or transaction, and may vote thereat to authorize any such contract or transaction, with like force and effect as if he were not such director or officer of such other corporation or not so interested.

SIXTEENTH. The Company is to have perpetual existence.

In Witness Whereof, we have signed this Certificate of Incorporation this 30th day of November, 1928.

WITNESS:

L. W. FERRIS as to GEORGE J. CARR.

L. W. FERRIS as to IRVING G. IDLER.

L. W. FERRIS as to ROBERT WILSON.

STATE OF NEW YORK,
COUNTY OF NEW YORK,

I hereby certify, that on this 30th day of November, 1928, before me, the subscriber, a notary public of the State of New York, in and for the County of New York, personally appeared GEORGE J. CARR, IRVING G. IDLER and ROBERT WILSON, subscribers to the Certificate of Incorporation of General Brass Corporation (Maryland), and each acknowledged the foregoing to be his respective act and deed.

Witness my hand and notarial seal.

JOHN T. MEEHAN,
Notary Public.

[NOTARY'S
SEAL]

- (a) The Company desires to restate its charter as now in effect.
- (b) The foregoing sets forth all provisions of the charter of the Company now in effect, but (i) including therein (in lieu of statements as to such facts given in any prior charter paper of the Company) the present post-office address of the principal office of the Company in the State of Maryland, the name and post-office address of the present resident agent of the Company in the State of Maryland, and the present number of directors and names of the directors at this time in office; (ii) omitting all provisions relating solely to classes of stock of which, at this time, no shares are issued and outstanding or authorized to be issued by the Company; and (iii) omitting all provisions of the charter which have been eliminated therefrom by amendment, all as provided by Section 13 of Article 23 of the Annotated Code of Maryland (1951 Edition).
- (c) The provisions set forth above are all provisions of the charter of the Company now in effect.
- (d) This restatement of the charter of the Company has been authorized by vote of a majority of the entire Board of Directors of the Company at a meeting of the Board of Directors duly called and held on October 23, 1955, at which meeting a quorum was present and acting throughout.
- (e) No amendment of the charter of the Company is being effected by these Articles of Restatement of the charter, except as in Section 13 of Article 23 of the Annotated Code of Maryland (1951 Edition) specifically permitted.

IN WITNESS WHEREOF, REVERE COPPER AND BRASS INCORPORATED, a Maryland corporation, has caused these Articles of Restatement of the charter of the Company to be signed and acknowledged in the name and on behalf of the Company by the President and its corporate seal to be affixed hereto and attested by an Assistant Secretary on November 10, 1955

REVERE COPPER AND BRASS INCORPORATED

By C. A. MACFIE

(C. A. MACFIE)

President

[SEAL]

Attest:

A. E. McCORMICK

(A. E. McCORMICK)

Assistant Secretary.

STATE OF NEW YORK)
COUNTY OF NEW YORK) ss.:

I hereby certify that on November 10, 1955, before me, the subscriber, a Notary Public of the State of New York, personally appeared C. A. MACFIE, President of REVERE COPPER AND BRASS INCORPORATED, a Maryland corporation, and in the name and on behalf of said corporation acknowledged the foregoing Articles of Restatement of the Charter of said corporation to be the corporate act of said corporation; and at the same time personally appeared J. M. KENNEDY, and made oath in due form of law that he was Chairman of the meeting of the Board of Directors of said corporation at which the restatement of the charter of said corporation set forth in said Articles of Restatement was authorized, and that the matters and facts set forth in said Articles of Restatement with respect to authorization thereof by the Board of Directors of said corporation are true to the best of his knowledge, information and belief.

WITNESS MY HAND and notarial seal the day and year last above written.

[NOTARIAL SEAL]

ALBERT T. WANTZ
Notary Public.

Albert T. Wantz
Notary Public, State of New York
No. 60-4151500
Qualified in New York County
Certs. filed with N.Y. & Westchester
County Clerks
Commission Expires March 30, 1957

STATE TAX COMMISSION OF MARYLAND

THIS IS TO CERTIFY that the within instrument is a true
copy of the ARTICLES OF RESTATEMENT OF THE CHARTER
OF
REVERE COOPER AND BRASS INCORPORATED

as approved and received for record by the State Tax Commission of
Maryland, November 11, 1955 at 11:55 o'clock A.M.

IN WITNESS my hand and official seal of the said Commission
at Baltimore this 11th day of December, 1955.



Albert F. Ward
Secretary



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.

CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

27 APR 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Don Pailen
Corporation Counsel
City of Detroit
1010 City County Building
Detroit, Michigan 48226

Re: Revere Copper & Brass Site
Detroit, Michigan

Dear Sir:

On March 17, 1988 at approximately 9:40 a.m. Eastern Standard Time, the following statement was made to Mr. Alexander of your office over the telephone:

The U.S. Environmental Protection Agency (U.S. EPA) intends to expend public funds to take action to abate a release or threatened release of hazardous substances, pollutants and other contaminants at the Revere Copper & Brass facility in Detroit, Michigan. This action is authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. Section 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986. Under CERCLA, and other laws, responsible parties may be liable for money expended by the government to take necessary corrective action at the site, including investigation, planning, cleanup and enforcement. Potentially Responsible Parties ("PRPs") include the current owner or operator of the site, the past owner and operator, and persons who generated or were involved in transport, treatment, or disposal of hazardous substances at the site.

Contaminants including polychlorinated biphenyls (PCBs) have been found on the site. Before the government undertakes the necessary response action at the site, PRPs are being offered the opportunity to perform voluntarily the required

A004

work to abate any release of hazardous substances, pollutants, or contaminants from the site. If private party cleanup is not forthcoming and public funds are expended, PRPs may be liable for the costs incurred by the government. U.S. EPA plans to engage in an action to:

- (1) Restrict access to the site;
- (2) Survey the extent of contamination at the site;
- (3) Eliminate off-site migration of contaminants; and
- (4) Decontaminate the area of the site where drums and transformers were disposed to mitigate the release of hazardous substances at the site. This may include soil excavation and removal of the drums and transformers.

These actions are designed to protect the public health from a release or threat of release of hazardous substances, pollutants or contaminants. Under Section 107 of CERCLA, PRPs may be held responsible for all or part of the costs incurred by the U.S. EPA in undertaking this work. PRPs have the option, should they decide to exercise it, of initiating these activities if this can be accomplished in a timely manner. Due to the nature of this endangerment, immediate action will be required. U.S. EPA shall, at the direction of its On-Scene Coordinator, begin today at 1:30 p.m. Eastern Standard Time (EST) to abate the endangerment posed by the site. Therefore, a PRP must notify U.S. EPA today by 1:30 p.m. EST if it intends to undertake the work planned by U.S. EPA. If PRPs fail to notify U.S. EPA today by 1:30 p.m. EST, U.S. EPA will begin taking the necessary action at the site in lieu of private party action. Please contact Thomas J. Kenney, U.S. EPA, Office of Regional Counsel, 230 S. Dearborn St., Chicago, Illinois 60604, phone (312) 353-1027, to provide notice or if you have any questions. Do you understand? Do you have any questions?

This letter confirms the above oral notice and reiterates the responsibilities and rights of the City of Detroit under

CERCLA. Pursuant to Section 104 of CERCLA, U.S. EPA is authorized to undertake response actions deemed necessary to protect public health or welfare or the environment. U.S. EPA is also authorized to allow PRPs an opportunity to participate in such response actions.

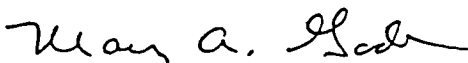
U.S. EPA is currently undertaking an emergency response action at the Revere Copper & Brass site in Detroit, Michigan. U.S. EPA has determined that the City of Detroit, may be a PRP for the release or threat of release of hazardous substances, pollutants or contaminants from the site. As a PRP, the City of Detroit may be liable for the emergency response costs incurred by the government in taking corrective action at the site. U.S. EPA has afforded and will continue to afford the City of Detroit an opportunity to participate in the response action being conducted by the U.S. EPA.

If you have any questions concerning this matter please contact:

Thomas J. Kenney
Office of Regional Counsel (5CS-TUB-3)
United States Environmental
Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

Telephone: (312) 353-1027

Sincerely,



Mary A. Gade
Acting Associate Division Director,
Office of Superfund